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FILE 'EUROPATFULL, PCTFULL, USPAT2, WPIDS' ENTERED AT 14:45:13 ON 06 MAR 2003

FILE 'EUROPATFULL, PCTFULL, USPATFULL, USPAT2, WPIDS' ENTERED AT 14:45:35

ON 06 MAR 2003

E HOFFMANN ROCHE/PA E HOFFMANN-LA ROCHE/PA

L1 3315 S E2-E12

L2 2 S L1 AND (PEG-INF? OR PEG(2W) INTERFERON(2W) CONJUGATE?)

0 103 00P L2 ANSWER 1 OF 2 EUROPATFULL COPYRIGHT 2003 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 809996 EUROPATFULL EW 199749 FS OS

TITLE: Interferon conjugates. Interferon-Konjugate.

Conjugues de l'interferon.

INVENTOR (S): Bailon, Pascal Sebastian, 21 Woodbine Road, Florham

Park, New Jersey 07932, US;

Palleroni, Alicia Vallejo, 47 White Oak Drive, North

Caldwell, New Jersey 07006, US

F. HOFFMANN-LA PATENT ASSIGNEE(S):

ROCHE AG, 124 Grenzacherstrasse, 4070

Basel, CH

PATENT ASSIGNEE NO:

1107064

OTHER SOURCE: ESP1997073 EP 0809996 A2 971203

Wila-EPZ-1997-H49-T1b SOURCE:

DOCUMENT TYPE: Patent

Anmeldung in Englisch; Veroeffentlichung in Englisch LANGUAGE: DESIGNATED STATES: R AT; R BE; R CH; R DE; R DK; R ES; R FI; R FR; R GB; R

GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE

PATENT INFO.PUB.TYPE: EPA2 EUROPAEISCHE PATENTANMELDUNG

PATENT INFORMATION:

APPLICATION INFO.:

PATENT NO KIND DATE EP 809996 A2 19971203 'OFFENLEGUNGS' DATE: 19971203 EP 1997-108261 19970522 PRIORITY APPLN. INFO.: US 1996-18834 19960531

F. HOFFMANN-LA ROCHE AG

, 124 Grenzacherstrasse, 4070 Basel, CH

DETDEN. . . case of interferon, PEGylation reduces in vitro antiviral

activity but increases antiproliferative activity in human tumor cells.

However the new PEG interferon conjugate

of this invention has surprising properties in that the

antiproliferative activity of the PEG interferon is much higher than

that not only of interferon but of other PEG

interferon conjugates. Although the antiproliferative

activity of the conjugate is much increased over other PEG

interferon-.alpha. conjugates, yet the reduction in antiviral activity is similar. In addition, the PEG

interferon-.alpha. conjugate of this invention is

non-immunogenic, it elicits virtually no antibody formation. In

contrast, other PEG interferon-.alpha.

conjugates do elicit limited antibody formation.

The conjugate of this invention has the same uses as IFN.alpha., for

example, antiproliferative uses. In particular, the PEG

interferon-.alpha. conjugates of this invention are

useful to treat immunomodulatory disorders such as neoplastic diseases,

for example, hairy cell leukemia, CML, and.

L2 ANSWER 2 OF 2 EUROPATFULL COPYRIGHT 2003 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: EUROPATFULL EW 199417 FS OS STA B 593868

TITLE: PEG-interferon conjugates. PEG-Interferon-Konjugate.

Conjugues PEG-interferon.

INVENTOR(S): Karasiewicz, Robert, 30 Deerfield Road, Parsippany,

N.J.

07054, US;

Nalin, Carlo, 327 Forest Glenn Avenue, Franklin Lakes,

N.J. 07417, US;

Rosen, Perry, 26 Sunset Drive, North Caldwell, N.J.

07006, US

PATENT ASSIGNEE(S): F. HOFFMANN-LA

ROCHE AG, Grenzacherstrasse 124,

CH-4002 Basel, CH

PATENT ASSIGNEE NO: 200573

AGENT: Mezger, Wolfgang, Dr. et al, Grenzacherstrasse 124

Postfach 3255, CH-4002 Basel, CH

AGENT NUMBER: 26171

OTHER SOURCE: ESP1994029 EP 0593868 A1 940427

SOURCE: Wila-EPZ-1994-H17-Tla

DOCUMENT TYPE: Patent

LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch

DESIGNATED STATES: R AT; R BE; R CH; R DE; R DK; R ES; R FR; R GB; R GR; R

IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE

PATENT INFO.PUB.TYPE: EPA1 EUROPAEISCHE PATENTANMELDUNG

PATENT INFORMATION:

GRANTED PATENT - ERTEILTES PATENT - BREVET DELIVRE

ACCESSION NUMBER: 593868 EUROPATFULL EW 199816 FS PS

TITLE: PEG-interferon conjugates.
PEG-Interferon-Konjugate.

PEG-Interferon-Konjugate. Conjugues PEG-interferon.

INVENTOR(S): Karasiewicz, Robert, 30 Deerfield Road, Parsippany,

N.J.

07054, US;

Nalin, Carlo, 327 Forest Glenn Aven

ACCESSION NUMBER: EUROPATFULL EW 199417 FS OS STA B 593868

PEG-interferon conjugates.

PEG-Interferon-Konjugate. Conjugues PEG-interferon.

INVENTOR(S):

Karasiewicz, Robert, 30 Deerfield Road, Parsippany,

N.J.

07054, US;

Nalin, Carlo, 327 Forest Glenn Avenue, Franklin Lakes,

N.J. 07417, US;

Rosen, Perry, 26 Sunset Drive, North Caldwell, N.J.

07006, US

PATENT ASSIGNEE(S): F. HOFFMANN-LA

ROCHE AG, Grenzacherstrasse 124,

CH-4002 Basel, CH

PATENT ASSIGNEE NO:

200573

AGENT: Mezger, Wolfgang, Dr. et al, Grenzacherstrasse 124

Postfach 3255, CH-4002 Basel, CH

AGENT NUMBER: 26171

ESP1994029 EP 0593868 A1 940427 OTHER SOURCE:

SOURCE: Wila-EPZ-1994-H17-T1a

DOCUMENT TYPE:

Patent

LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch

R AT; R BE; R CH; R DE; R DK; R ES; R FR; R GB; R GR; R DESIGNATED STATES:

IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE

PATENT INFO.PUB.TYPE: EPA1 EUROPAEISCHE PATENTANMELDUNG

PATENT INFORMATION:

PATENT NO KIND DATE -----EP 593868 A1 19940427 'OFFENLEGUNGS' DATE: 19940427 APPLICATION INFO.: EP 1993-112983 19930813 PRIORITY APPLN. INFO.: US 1992-935770 19920826

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TSCA INFORMATION NOW CURRENT THROUGH January 11, 2001

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT for details.

=> e interferonalpha.2a/cn						
E1	1	INTERFERONALPHA. R1 RECEPTOR (CATTLE CLONE				
BO.ALPHA.RPL/PB						
		LUE)/CN				
E2	1	INTERFERONALPHA./.BETABINDING PROTEIN (ECTROMELIA				
VIRUS						
		STRAIN MOSCOW GENE C12R)/CN				
E3	0>	INTERFERONALPHA.2A/CN				
E4	1	INTERFERONALPHA.2B (PLASMID PMON20442)/CN				
E5	1	INTERFERONALPHA.2B (PLASMID PMON30422)/CN				
E6	1	INTERFERONALPHA.2B (PLASMID PMON30426)/CN				

Page 13

Prepared by M. Hale 308-4258

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dam,
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E7
              1
                    INTERFERON-.ALPHA.A/D (PLASMID PMON20405)/CN
E8
              1
                    INTERFERON-.ALPHA.A/D (PLASMID PMON20433)/CN
E9
                    INTERFERON-.GAMMA. (CANIS FAMILIARIS)/CN
              1
E10
              1
                    INTERFERON-.GAMMA. (CHICKEN CELL CC8.1H PRECURSOR)/CN
                    INTERFERON-.GAMMA. (HUMAN CHINESE CLONE
E11
              1
PUC19-HIFN-.GAMMA.)/
                    CN
                    INTERFERON-.GAMMA. INDUCIBLE PROTEIN 10 (MOUSE STRAIN
E12
              1
SJL/J
                    SPINAL CORD GENE SCYB10 PRECURSOR)/CN
=> e interferon-.alpha. 2a/cn
E1
              1
                    INTERFERON-.ALPHA. (HAMSTER GENE IFA-3)/CN
              1 INTERFERON-.ALPHA. (HUMAN PRECURSOR)/CN 0 --> INTERFERON-.ALPHA. 2A/CN
E2
E3
                    INTERFERON-.ALPHA. R1 RECEPTOR (CATTLE CLONE
E4
              1
BO.ALPHA.RPL/PB
                    LUE)/CN
                    INTERFERON-.ALPHA./.BETA.-BINDING PROTEIN (ECTROMELIA
E5
              1
VIRUS
                    STRAIN MOSCOW GENE C12R)/CN
E.6
                    INTERFERON-.ALPHA.2B (PLASMID PMON20442)/CN
              1
E7
                    INTERFERON-.ALPHA.2B (PLASMID PMON30422)/CN
              1
E8
              1
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E9
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              1
E10
              1
                    INTERFERON-.ALPHA.A/D (PLASMID PMON20433)/CN
                    INTERFERON-.GAMMA. (CANIS FAMILIARIS)/CN
E11
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E12
                    INTERFERON-.GAMMA. (CHICKEN CELL CC8.1H PRECURSOR)/CN
=> s interferon-.alpha.?/cn
              8 INTERFERON-.ALPHA.?/CN
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       NH-G1-CH-NH--C
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REP G1=(4-4) CH2 NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

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GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED

STEREO ATTRIBUTES: NONE

NUMBER OF NODES IS 13

L3 4070 SEA FILE=REGISTRY SSS FUL L1

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E5 VIRUS)/C	1	N HEPATITIS C CORE ANTIGEN (139-LEUCINE) (HEPATITIS C N
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E7 CLONE	1	THCVC)/CN HEPATITIS C CORE ANTIGEN (HEPATITIS B VIRUS STRAIN ADR PPM13 GENE C)/CN

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1
                   HEPATITIS C CORE ANTIGEN (HEPATITIS C VIRUS CLONE 120NA
E8
N-TE
                   RMINAL FRAGMENT) FUSION PROTEIN WITH HEPATITIS B E ANTIGEN
                   HEPATITIS B VIRUS C-TERMINAL FRAGMENT)/CN
                   HEPATITIS C CORE ANTIGEN (HEPATITIS C VIRUS CLONE 120NA)
E9
             1
FUS
                   ION PROTEIN WITH PROTAMINE 1 (MOUSE PRECURSOR)/CN
                   HEPATITIS C CORE ANTIGEN (HEPATITIS C VIRUS CLONE 150NA
E10
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N-TE
                   RMINAL FRAGMENT) FUSION PROTEIN WITH HEPATITIS B E ANTIGEN
                   HEPATITIS B VIRUS C-TERMINAL FRAGMENT)/CN
                   HEPATITIS C CORE ANTIGEN (HEPATITIS C VIRUS CLONE 150NA
E11
             1
N-TE
                   RMINAL FRAGMENT) FUSION PROTEIN WITH HEPATITIS B E ANTIGEN
                   HEPATITIS B VIRUS C-TERMINAL FRAGMENT) FUSION PROTEIN WITH
                   EPATITIS C CORE ANTI/CN
                   HEPATITIS C CORE ANTIGEN (HEPATITIS C VIRUS CLONE 24-4
E12
FRAGM
                   ENT)/CN
=> s hepatitis c ?/cn
    12 HEPATITIS C ?/CN
=> fil medl, caplus, biosis, embase; s 13 and (15 or hepatitis c or interferon
alpha or ifn alpha or 14)
COST IN U.S. DOLLARS
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FULL ESTIMATED COST
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             O FILE EMBASE
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Page 16

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TOTAL FOR ALL FILES
             1 L3 AND (L5 OR HEPATITIS C OR INTERFERON ALPHA OR IFN ALPHA OR
L10
=> d cbib abs hitstr
L10 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
              Document No. 127:66231 Synthetic peptide substrate for activity
     assay having chromophore or fluorescent chromophore active against
     hepatitis C virus NS3 protease. Shimizu, Yasuaki;
     Yamaji, Kayo; Masuho, Yasuhiko; Shimotohno, Kunitada (Rational Drug
     Laboratories, Japan; Shimizu, Yasuaki; Yamaji, Kayo; Masuho, Yasuhiko;
     Shimotohno, Kunitada). PCT Int. Appl. WO 9719103 Al 19970529, 46 pp.
     DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH,
CN,
     CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KR, KZ, LC,
     LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU,
     SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG,
     KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES,
     FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG.
     (Japanese). CODEN: PIXXD2. APPLICATION: WO 1996-JP3398 19961120.
     PRIORITY: JP 1995-304881 19951122.
     A synthetic peptide substrate, which contains a specific amino acid
     sequence, has a fluorescent chromophore or chromophore covalently bonded
     to the C-terminus, and carries at least one amino acid inhibiting the
     aminopeptidase digestion on the N-terminal side of the above sequence, is
     represented by formula Z-Cys-Ala-Met-Ala-X-A-Y (Z = amino acid or peptide
     residue; X = Leu, Trp, Tyr; A = single bond, peptide; Y = fluorescent
     chromophore or chromophore; at least one peptide bond present in the
Z-Cvs
     region is not easily digested by aminopeptidase and any peptide bond
     present inside the X-A region is digested by aminopeptidase). A
preferred
     fluorescent chromophore or chromophore is 7-amino-4-methylcoumarin,
     7-amino-4-trifluoromethylcoumarin, p-nitroaniline, or .beta.-
     naphthylamine. The amino acid or amino acid residue present in the Z-Cys
     region and not readily digested by aminopeptidase is Asp, Ser, Pro, Ile,
     or Val. An activity assay of hepatitis C virus NS3
     protease involves double digestion of above synthetic substrate (
     hepatitis C virus NS4A-derived peptide) by
     hepatitis C virus NS3 protease and aminopeptidase. A
     preferred synthetic substrate is
H-Lys-Glu-Asp-Val-Val-Pro-Cys-Ala-Met-Ala-
     Leu-Y (I; Y = same as above) which maintains digestibility by leucine
     aminopeptidase (APM) and improves digestion ratio by NS3 protease. The
     use of this substrate makes it possible to efficiently assay the activity
     of an NS3 protease and provides a rapid, simple, highly sensitive, and
     high throughput assay system for NS3 protease which is needed for
     screening NS3 protease inhibitors. By effecting the assay in the
presence
     of NS4A, the detection sensitivity can be further elevated. Thus, I (Y =
```

p-nitrophenylamino) (II) was prepd. by condensation of

Fmoc-Cys(Trt)-Ala-Met-Ala-OH (prepn. given) with H-Leu-NHC6H4NO2-p.HCl

and

Fmoc-deprotection followed by condensation of the resulting H-Cys(Trt)-Ala-Met-Ala-Leu-NHC6H4NO2-p with Fmoc-Lys(Boc)-Glu(tBu)-Asp(tBu)-Val-Pro-OH (prepn. given) using DCC in the presence of HOBT in DMF and deprotection. II was digested dose-dependently by maltose binding protein-fused NS3 protease in the presence of NS4A-derived peptide

(H-LTTGSVVIVGRIILSGRPAVVPD-OH) enhancing the activity of NS3 protease.

IT 191529-79-0DP, chlorotrityl resin-bound 191529-79-0P

191529-82-5P 191529-89-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of peptides having chromophore or fluorescent chromophore as
 substrates for assaying hepatitis C virus NS3
 protease)

RN 191529-79-0 CAPLUS

CN L-Proline, N6-[(1,1-dimethylethoxy)carbonyl]-N2-[(9H-fluoren-9-

ylmethoxy)carbonyl]-L-lysyl-L-.alpha.-glutamyl-L-.alpha.-aspartyl-L-valyl-L-valyl-, 2,3-bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 191529-79-0 CAPLUS

CN L-Proline, N6-[(1,1-dimethylethoxy)carbonyl]-N2-[(9H-fluoren-9-

ylmethoxy)carbonyl]-L-lysyl-L-.alpha.-glutamyl-L-.alpha.-aspartyl-L-valyl-L-valyl-, 2,3-bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 191529-82-5 CAPLUS

CN L-Leucinamide, N6-[(1,1-dimethylethoxy)carbonyl]-N2-[(9H-fluoren-9-

Absolute stereochemistry.

PAGE 1-C

RN 191529-89-2 CAPLUS

CN L-Leucinamide, N6-[(1,1-dimethylethoxy)carbonyl]-N2-[(9H-fluoren-9-

(CA INDEX NAME)

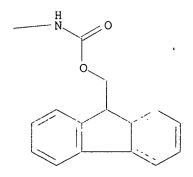
Page 21

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Absolute stereochemistry.

PAGE 1-A

PAGE 1-B



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Please note that search-term pricing does apply when conducting ${\tt SmartSELECT}$ searches.

Structure search limits have been increased. See $\mbox{HELP SLIMIT}$ for details.

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F.4
             1
                    PEG-SOD/CN
E5
             1
                    PEG2/CN
=> e polyethylene glycol interferon/cn
                    POLYETHYLENE GLYCOL HYDROXYMETHYLPHOSPHONATE/CN
             1
E1
                    POLYETHYLENE GLYCOL IMINOBIS (ETHYLENE) ETHER/CN
E2
             1
               --> POLYETHYLENE GLYCOL INTERFERON/CN
E3
             0
                    POLYETHYLENE GLYCOL ISO-DODECYLTRIMETHYLOLMETHANE ETHER/CN
E4
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E5
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E6
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E11
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                   POLYETHYLENE GLYCOL ISONONYLPHENOL ETHER/CN
E12
             1
=> s (peg or polyethylene glycol)(l)(ifn or interferon)
           145 PEG
             2 PEGS
           147 PEG
                  (PEG OR PEGS)
          6314 POLYETHYLENE
         38701 GLYCOL
           715 GLYCOLS
         38701 GLYCOL .
                  (GLYCOL OR GLYCOLS)
          5269 POLYETHYLENE GLYCOL
                  (POLYETHYLENE (W) GLYCOL)
            58 IFN
          2393 INTERFERON
             7 INTERFERONS
          2397 INTERFERON
                  (INTERFERON OR INTERFERONS)
L11
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TOTAL FOR ALL FILES L27 24 L19 AND HEPATITIS C

 \Rightarrow d 1-24 cbib abs

L27 ANSWER 1 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
2001:260966 The Genuine Article (R) Number: 412AR. PEG-Intron Peginterferon alfa-2b powder for injection - Schering-Plough - Pegylated
 interferon for once-weekly treatment of chronic hepatitis
 C. ANON. FORMULARY (MAR 2001) Vol. 36, No. 3, pp. 177-178.
 Publisher: ADVANSTAR COMMUNICATIONS. 131 W FIRST ST, DULUTH, MN 55802
USA.

ISSN: 1082-801X. Language: English.

L27 ANSWER 2 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
2001:217030 The Genuine Article (R) Number: 407ZW. Current treatment
strategies for chronic hepatitis B and C. Lin O S (Reprint); Keeffe E
B.
Stanford Univ, Med Ctr, Dept Med, Div Gastroenterol, Stanford, CA 94305
USA (Reprint). ANNUAL REVIEW OF MEDICINE (MAR 2001) Vol. 52, pp. 29-49.

Page 25

Publisher: ANNUAL REVIEWS. 4139 EL CAMINO WAY, PO BOX 10139, PALO ALTO,

CA

94303-0139 USA. ISSN: 0066-4219. Pub. country: USA. Language: English. *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

For chronic hepatitis B, treatment with a 4-month course of AB interferon alfa-2b can achieve hepatitis B e antigen seroconversion, normalization of aminotransferase levels, reduced hepatic inflammation, and possibly reduced progression to cirrhosis and improvement in survival in 20%-30% of patients. Similar results can be achieved with a 12-month course of lamivudine, with response rates increasing to 40%-65% after 3 years of therapy. Interferon can also be used in early cirrhotic patients, and lamivudine can be used in advanced cirrhotics and immunosuppressed patients. Combination interferon and lamivudine therapy does not confer additional benefits. For chronic hepatitis C, the combination of interferon alfa-2b and ribavirin is the treatment of choice, offering superior sustained response rates (40%) compared with interferon alone (15%). Therapy should be administered for 12 months to patients with genotype 1 virus but for only 6 months to patients

with genotypes 2 and 3. Patients experiencing relapse after 6 months of interferon monotherapy can be re-treated with interferon and ribavirin or high-dose interferon, with 45%-56% sustained response rates. However, relatively few patients who are prior nonresponders to interferon monotherapy will have sustained response to further interferon-based treatments, including combination therapy with ribavirin. Successful therapy not only leads to the eradication of viral RNA but also may delay progression to cirrhosis and hepatocellular carcinoma. Interferon combined with polyethylene glycol (PEG), shows promise as an improved formulation of interferon with yet higher sustained response rates.

- L27 ANSWER 3 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
 2001:199190 The Genuine Article (R) Number: 405MR. PEG-IFN
 plus ribavirin for chronic hepatitis C A
 dose-ranging study of pegylated interferon alfa-2b and ribavirin
 in chronic hepatitis C Glue P, Rouzier-Ranis R,
 Raffanel C, et al. Hepatology. 2000;32: 647-653.. ANON. INFECTIONS IN
 MEDICINE (FEB 2001) Vol. 18, No. 2, pp. 91-92. Publisher: SCP
 COMMUNICATIONS INC. 134 W 29TH ST, NEW YORK, NY 10001-5304 USA. ISSN:
 0749-6524. Language: English.
- L27 ANSWER 4 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
 2001:118527 The Genuine Article (R) Number: 397QF. Efficacy and safety of
 pegylated (40-kd) interferon alpha-2a compared with interferon alpha-2a
 in

noncirrhotic patients with chronic hepatitis C. Reddy K R (Reprint); Wright T L; Pockros P J; Shiffman M; Everson G; Reindollar R; Fried M W; Purdum P P; Jensen D; Smith C; Lee W M; Boyer T D; Lin A; Pedder S; DePamphilis J. Ctr Liver Dis, 1500 NW 12th Ave, Suite 1101, Miami, FL 33136 USA (Reprint); Univ Miami, Sch Med, Miami, FL USA; Vet

Med Ctr, San Francisco, CA 94121 USA; Scripps Clin, La Jolla, CA USA; Virginia Commonwealth Univ, Med Coll Virginia, Richmond, VA 23298 USA;

Adm

Univ Colorado, Sch Med, Denver, CO USA; Carolinas Ctr Liver Dis, Charlotte, NC USA; Emory Univ, Sch Med, Atlanta, GA USA; Charlotte Clin Gastrointestinal & Liver Dis, Charlotte, NC USA; Rush Presbyterian St Lukes Med Ctr, Chicago, IL 60612 USA; Minnesota Clin Res Ctr, St Paul, MN USA; Univ Texas, SW Med Ctr, Dallas, TX USA; Emory Univ, Sch Med,

GA USA; Hoffmann La Roche Inc, Nutley, NJ 07110 USA. HEPATOLOGY (FEB 2001)

Vol. 33, No. 2, pp. 433-438. Publisher: W B SAUNDERS CO. INDEPENDENCE SQUARE WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399 USA.

0270-9139. Pub. country: USA. Language: English. *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

AB Administration of interferon (IFN) 3 times weekly in patients with chronic hepatitis C (CHC) is associated with low sustained responses, which may be, in part, related

this regimen's inability to maintain IFN concentrations sufficient to suppress viral replication. An enhanced IFN molecule produced by the covalent attachment of a branched 40-kd polyethylene glycol moiety to IFN alpha -2a (PEG[40kd] IFN alpha -2a) exhibits sustained absorption, a restricted volume of distribution, and reduced clearance compared with unmodified IFN alpha -2a. One hundred fifty-nine patients with CHC participated in a randomized, ascending-dose (45 or 90, 180, 270 mug) study comparing PEG(40kd) IFN alpha -2a administered once weekly with 3 MIU IFN alpha -2a administered 3 times weekly for 48 weeks to determine the most appropriate PEG(40kd) IFN alpha -2a dose for subsequent clinical trials. Efficacy was assessed by measuring hepatitis C virus (HCV) RNA following a 24-week treatment-free period. Sustained virological responses

for PEG(40kd) IFN alpha -2a once weekly were 10% (45 mug; not significant), 30% (90 mug; P = .009), 36% (180 mug; P = .0006), and 29% (270 mug; P = .004), compared with 3% for the 3-times-weekly 3-MIU

IFN alpha -2a regimen. The types and frequencies of adverse events
and laboratory abnormalities were similar among all groups. In
conclusion,

once-weekly PEG(40kd) IFN alpha -2a was associated with a higher number of sustained virological responses compared with IFN alpha -2a 3 times weekly in patients with CHC, but had a similar safety profile. The 180-mug PEG(40kd) IFN alpha -2a dose appeared to be the optimal dose based on sustained virological response and its associated side-effect profile.

L27 ANSWER 5 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
2001:16882 The Genuine Article (R) Number: 359PZ. High and low doses of
peg-interferon alfa 2b plus Ribavirin in "naive"
patients with chronic hepatitis C genotype 1: Effects
on early viral kinetics.. Sanchez-Avila J F (Reprint); Buti M; Martel M;
Stalgis C; Lafleur F; Cotrina M; Morral S; Esteban R; Guardia J. Hosp Gen
Valle Hebron, Barcelona, Spain; Schering Plough Corp, Res Inst,
Kenilworth, NJ 07033 USA. HEPATOLOGY (OCT 2000) Vol. 32, No. 4, Part 2,
pp. 359A-359A. MA 800. Publisher: W B SAUNDERS CO. INDEPENDENCE SQUARE

WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399 USA. ISSN: 0270-9139. Pub. country: Spain; USA. Language: English.

L27 ANSWER 6 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
2000:918040 The Genuine Article (R) Number: 380PX. Peginterferon alfa-2a in patients with chronic hepatitis C and cirrhosis.

Heathcote E J (Reprint); Shiffman M L; Cooksley W G E; Dusheiko G M; Lee

S; Balart L; Reindollar R; Reddy R K; Wright T L; Lin A; Hoffman J; DePamphilis J. TORONTO WESTERN HOSP, UNIV HLTH NETWORK, DEPT MED, 399 BATHURST ST, TORONTO, ON M5T 2S8, CANADA (Reprint); VIRGINIA COMMONWEALTH UNIV, MED COLL VIRGINIA, DEPT MED, HEPATOL SECT, RICHMOND, VA 23298;

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BRISBANE HOSP, DEPT MED, BRISBANE, QLD 4029, AUSTRALIA; ROYAL FREE HOSP, DEPT MED, DEPT CLIN RES, LONDON NW3 2QG, ENGLAND; HERITAGE MED RES CLIN, DEPT MED, CALGARY, AB, CANADA; LOUISIANA STATE UNIV, HLTH SCI CTR, DEPT MED, NEW ORLEANS, LA; CAROLINAS CTR LIVER DIS, DEPT MED, CHARLOTTE, NC; UNIV MIAMI, SCH MED, DEPT MED, CTR LIVER DIS, MIAMI, FL; VET AFFAIRS MED CTR, DEPT MED, GASTROENTEROL UNIT, SAN FRANCISCO, CA 94121; HOFFMANN LA ROCHE INC, NUTLEY, NJ 07110. NEW ENGLAND JOURNAL OF MEDICINE (7 DEC

Vol. 343, No. 23, pp. 1673-1680. Publisher: MASSACHUSETTS MEDICAL SOC. WALTHAM WOODS CENTER, 860 WINTER ST, WALTHAM, MA 02451-1413. ISSN: 0028-4793. Pub. country: CANADA; USA; AUSTRALIA; ENGLAND. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

Background: Chronic hepatitis C virus (HCV)
infection in patients with cirrhosis is difficult to treat. In patients with chronic hepatitis C but without cirrhosis,
once-weekly administration of interferon modified by the attachment of a 40-kd branched-chain polyethylene glycol moiety (peginterferon alfa-2a) is more efficacious than a regimen of unmodified interferon. We examined the efficacy and safety of peginterferon alfa-2a in patients with HCV-related cirrhosis or bridging fibrosis.

Methods: We randomly assigned 271 patients with cirrhosis or bridging fibrosis to receive subcutaneous treatment with 3 million units of interferon alfa-2a three times weekly (88 patients), 90 microg of peginterferon alfa-2a once weekly (96), or 180 microg of peginterferon alfa-2a once weekly (87). Treatment lasted 48 weeks and was followed by a 24-week follow-up period. We assessed efficacy by measuring HCV RNA and alanine aminotransferase and by evaluating liver-biopsy specimens. A histologic response was defined as a decrease of at least 2 points on the 22-point Histological Activity Index.

Results: In an intention-to-treat analysis, HCV RNA was undetectable

at

week 72 in 8 percent, 15 percent, and 30 percent of the patients treated with interferon alfa-2a and with 90 microg and 180 microg of peginterferon alfa-2a, respectively (P=0.001 for the comparison between 180 microg of peginterferon alfa-2a and interferon alfa-2a). At week 72, alanine aminotransferase concentrations had normalized in 15 percent, 20 percent, and 34 percent of patients, respectively (P=0.004)

for

the comparison between 180 microg of peginterferon alfa-2a and interferon alfa-2a). In the subgroup of 184 patients with paired

liver-biopsy specimens, the rates of histologic response at week 72 were 31 percent, 44 percent, and 54 percent, respectively (P=0.02 for the comparison between 180 microg of peginterferon alfa-2a and interferon alfa-2a). All three treatments were similarly tolerated.

Conclusions: In patients with chronic hepatitis C and cirrhosis or bridging fibrosis, 180 microg of peginterferon alfa-2a administered once weekly is significantly more effective than 3 million units of standard interferon alfa-2a administered three times weekly. (N Engl J Med 2000;343:1673-80.) (C) 2000, Massachusetts Medical Society.

L27 ANSWER 7 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)

2000:918039 The Genuine Article (R) Number: 380PX. Peginterferon alfa-2a in patients with chronic $\bf hepatitis$ C. Zeuzem S

(Reprint); Feinman S V; Rasenack J; Heathcote E J; Lai M Y; Gane E;

J; Reichen J; Diago M; Lin A; Hoffman J; Brunda M J. UNIV FRANKFURT KLINIKUM, ZENTRUM INNEREN MED, MED KLIN 2, THEODOR STERN KAI 7, D-60590 FRANKFURT, GERMANY (Reprint); MT SINAI HOSP, TORONTO, ON M5G 1X5, CANADA; MED UNIV KLIN, FREIBURG, GERMANY; TORONTO WESTERN HOSP, TORONTO, ON M5T 2S8, CANADA; NATL TAIWAN UNIV HOSP, TAIPEI, TAIWAN; MIDDLEMORE HOSP, AUCKLAND 6, NEW ZEALAND; UNIV LONDON KINGS COLL HOSP, LONDON, ENGLAND; UNIV INST KLIN PHARMAKOL, BERN, SWITZERLAND; GEN UNIV, VALENCIA, SPAIN; HOFFMANN LA ROCHE INC, NUTLEY, NJ 07110. NEW ENGLAND JOURNAL OF MEDICINE (7 DEC 2000) Vol. 343, No. 23, pp. 1666-1672. Publisher: MASSACHUSETTS MEDICAL SOC. WALTHAM WOODS CENTER, 860 WINTER ST, WALTHAM, MA

ISSN: 0028-4793. Pub. country: GERMANY; CANADA; TAIWAN; NEW ZEALAND; ENGLAND; SWITZERLAND; SPAIN; USA. Language: English. *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

Background: Covalent attachment of a 40-kd branched-chain polyethylene glycol moiety to interferon alfa-2a results in a compound (peginterferon alfa-2a) that has sustained absorption, a slower rate of clearance, and a longer half-life than unmodified interferon alfa-2a. We compared the clinical effects of a regimen of peginterferon alfa-2a with those of a regimen of interferon alfa-2a in the initial treatment of patients with chronic hepatitis C.

Methods: We randomly assigned 531 patients with chronic hepatitis C to receive either 180 microg of peginterferon alfa-2a subcutaneously once per week for 48 weeks (267 patients) or 6 million units of interferon alfa-2a subcutaneously three times per week for 12 weeks, followed by 3 million units three times per week for 36 weeks (264 patients). All the patients were assessed at week 72 for a sustained virologic response, defined as

undetectable level of **hepatitis C** virus RNA (<100 copies per milliliter).

Results: In the peginterferon group, 223 of the 267 patients completed treatment and 206 completed follow-up. In the interferon group, 161 of the 264 patients completed treatment and 154 completed follow-up. In an intention-to-treat analysis in which patients who missed the examination at the end of treatment or follow-up were considered not to have had a response at that point, peginterferon alfa-2a was associated

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an

with a higher rate of virologic response than was interferon alfa-2a at week 48 (69 percent vs. 28 percent, P=0.001) and at week 72 (39

percent vs. 19 percent, P=0.001). Sustained normalization of serum alanine

aminotransferase concentrations at week 72 was also more common in the peginterferon group than in the **interferon** group (45 percent vs. 25 percent, P=0.001). The two groups were similar with respect to the frequency and severity of adverse events, which were typical of those associated with **interferon** alfa.

Conclusions: In patients with chronic hepatitis C, a regimen of peginterferon alfa-2a given once weekly is more effective than a regimen of interferon alfa-2a given three times weekly. (N Engl J Med 2000;343:1666-72.) (C) 2000, Massachusetts Medical Society.

L27 ANSWER 8 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
2000:681565 The Genuine Article (R) Number: 350FV. A dose-ranging study of
 pegylated interferon alfa-2b and ribavirin in chronic hepatitis
 C. Glue P (Reprint); RouzierPanis R; Raffanel C; Sabo R; Gupta S
 K; Salfi M; Jacobs S; Clement R P. SCHERING PLOUGH CORP, RES INST,
 K-15-4455, 2015 GALLOPING HILL RD, KENILWORTH, NJ 07033 (Reprint); CTR
 CAP, MONTPELLIER, FRANCE; HOP CAREMEAU, NIMES, FRANCE. HEPATOLOGY (SEP

2000) Vol. 32, No. 3, pp. 647-653. Publisher: W B SAUNDERS CO. INDEPENDENC

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E SQUARE WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399. ISSN: 0270-9139. Pub. country: USA; FRANCE. Language: English. *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

The objectives of this study were to assess the safety, pharmacokinetics, and efficacy of pegylated interferon alfa-2b (PEG-Intron) plus ribavirin in patients with chronic hepatitis C. A total of 72 patients (35 men/37 women, age range 20-68 years) with clinically compensated chronic hepatitis C virus (HCV) were enrolled into this open-label, randomized, active controlled study. Patients received either PEG-Intron 0.35, 0.7, or 1.4 mu g/kg subcutaneously weekly for 24 weeks alone, or in combination with ribavirin 600, 800, or 1,000 to 1,200 mg orally daily. Patients were evaluated during treatment and after a 24-week follow-up period for safety and efficacy. Detailed pharmacokinetic

assessments were performed at weeks 1 and 4. PEG-Intron alone produced expected dose-related reductions in white cells, neutrophils and platelets. Addition of ribavirin reduced hemoglobin levels in a dose-related manner, did not further reduce PEG-Intron-induced decreases in neutrophil or white cell count, and increased platelet counts. Neutrophil function tests (C5a and FMLP migration, killing curves)

were unaltered. Reported adverse events (flu-like symptoms, asthenia) were

qualitatively similar in all dose groups. Anti-HCV activity, as measured by loss of detectable serum HCV RNA (i.e. <100 copies/mL) at the end of treatment (week 24) and after 24 weeks of follow-up (week 48) showed dose-response trends for **PEG**-Intron. At each **PEG**-Intron dose level, anti-HCV activity was higher in patients

coadministered ribavirin than in patients treated with **PEG**-Intron monotherapy. There was no evidence of pharmacokinetic interactions

Page 30

with either drug. We conclude that the safety and tolerability of combined

PEG-Intron/ribavirin and PEG-Intron alone were comparable. Combined PEG-Intron/ribavirin showed dose-related synergistic anti-HCV effects, which were numerically superior to those obtained with PEG-Intron monotherapy.

- L27 ANSWER 9 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
 2000:591637 The Genuine Article (R) Number: 315GP. Evaluation of the safety
 and efficacy of once-weekly peg/interferon alfa-2a
 (PEGASYS(TM)) for chronic hepatitis C. A
 multinational, randomized study. Zeuzem S (Reprint); Feinman S V;
 Rasenack J; Heathcote E J; Lai M Y; Gane E; OGrady J; Reichen J; Brunda M
 J. JOURNAL OF HEPATOLOGY (MAR 2000) Vol. 32, Supp. [2], pp. 29-29.
 Publisher: MUNKSGAARD INT PUBL LTD. 35 NORRE SOGADE, PO BOX 2148, DK-1016
 COPENHAGEN, DENMARK. ISSN: 0168-8278. Language: English.
- L27 ANSWER 10 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
 2000:591636 The Genuine Article (R) Number: 315GP. Pegylated
 interferon alfa-2b (PEG-Intron) monotherapy is superior
 to interferon alfa-2b (Intron A) for the treatment of chronic
 hepatitis C. Trepo C (Reprint); Lindsay K; Niederau C;
 Shiffman M; Gordon S; Hoefs J; Schiff E; Marcellin P; Bacon B; Fang J;
 Garaud J; Albrecht J. HOP HOTEL DIEU, F-69288 LYON, FRANCE; SCHERING
 PLOUGH RES INST, KENILWORTH, NJ 07033. JOURNAL OF HEPATOLOGY (MAR 2000)
 Vol. 32, Supp. [2], pp. 29-29. Publisher: MUNKSGAARD INT PUBL LTD. 35
 NORRE SOGADE, PO BOX 2148, DK-1016 COPENHAGEN, DENMARK. ISSN: 0168-8278.
 Pub. country: FRANCE; USA. Language: English.
- L27 ANSWER 11 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
 2000:492311 The Genuine Article (R) Number: 327VW. Therapeutic options for
 HCV management of the infected individual. Foster G R (Reprint). ST
 MARYS HOSP, IMPERIAL COLL SCH MED, DEPT MED, CTR LIVER, QEQM WING, PRAED
 ST, LONDON W2 1PG, ENGLAND (Reprint). BEST PRACTICE & RESEARCH IN
 CLINICAL

GASTROENTEROLOGY (APR 2000) Vol. 14, No. 2, pp. 255-264. Publisher: BAILLIERE TINDALL. 24-28 OVAL RD, LONDON NW1 7DX, ENGLAND. ISSN: 1521-6918

. Pub. country: ENGLAND. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Patients with chronic hepatitis C infection should be assessed by liver biopsy prior to consideration of anti-viral therapy. Patients with histologically mild disease should be observed at regular intervals and assessed with a repeat liver biopsy after an interval of

years. Those with severe disease should receive early treatment with interferon-se and ribavirin. The duration of therapy is determined by the genotype of the infecting virus-viral genotypes 2 and 3 require only 6 months of treatment but other genotypes should be treated for 12 months. Approximately 35-40% of treated patients will respond to therapy with a permanent cessation of viral replication and improvement in liver histology. New therapies including polyethylene glycol, PEGylated, interferons and combination regimes involving amantadine are currently under evaluation and it is hoped that improved regimes will be developed in the near future.

- L27 ANSWER 12 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
 2000:478129 The Genuine Article (R) Number: 327KB. Coinfection by HIV and
 hepatitis C virus. Perronne C (Reprint); BaniSadr F.
 HOP UNIV RAYMOND POINCARE, FAC MED PARIS OUEST, SERV MALAD INFECT & TROP,
 F-92380 GARCHES, FRANCE (Reprint). MEDECINE ET MALADIES INFECTIEUSES (JUN
 2000) Vol. 30, No. 6, pp. 344-346. Publisher: EDITIONS SCIENTIFIQUES
 MEDICALES ELSEVIER. 23 RUE LINOIS, 75724 PARIS CEDEX 15, FRANCE. ISSN:
 0399-077X. Pub. country: FRANCE. Language: French.
- L27 ANSWER 13 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
 2000:400449 The Genuine Article (R) Number: 317AC. Antiviral therapy of
 hepatitis C. Erhardt A (Reprint); Petry W; Ebel M;
 Jablonowski H; Heintges T; Haussinger D. UNIV DUSSELDORF, KLIN
 GASTROENTEROL HEPATOL & INFEKTIOL, MOORENSTR 5, D-40225 DUSSELDORF,
 GERMANY (Reprint). ZEITSCHRIFT FUR GASTROENTEROLOGIE (MAR 2000) Vol. 38,
 No. 3, pp. 259-269. Publisher: DEMETER VERLAG GEORG THIEME VERLAG. PETRA
 SCHLAGENHAUF, RUDIGERSTR 14, D-70469 STUTTGART, GERMANY. ISSN:
 0044-2771.

Pub. country: GERMANY. Language: German. *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

- AB Hepatitis C is one of the world's leading infectious diseases. The interferon-ribavirin combination therapy is the new standard for the treatment of hepatitis C in naive and relapse patients. Virological sustained response rates can be more than doubled by the IFN-ribavirin combination therapy compared to IFN-monotherapy and treatment duration can be reduced to six months in many cases. The IFN-ribavirin combination therapy has a high relative benefit in patients with unfavorable predictive parameters like high viral load, HCV genotype-l infection and compensated Liver cirrhosis. Anemia is the most important side effect of the quanosin analogue ribavirin. There - are no official therapeutic recommendations for non-responder patients at present. These patients should be treated within controlled clinical trials. Monotherapy with PEG(pegylated) -interferons and combination therapies with PEG-interferons and ribavirin are the most promising future therapeutic options.
- L27 ANSWER 14 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
 2000:282192 The Genuine Article (R) Number: 301NV. Coinfection with the
 hepatitis C virus and HIV: current aspects. BaniSadr F
 (Reprint); Perronne C. HOP UNIV RAYMOND POINCARE, FAC MED PARIS OUEST,
 SERV MALAD INFECT & TROP, 104 BLVD RAYMOND POINCARE, F-92380 GARCHES,
 FRANCE (Reprint). MEDECINE ET MALADIES INFECTIEUSES (MAR 2000) Vol. 30,
 Supp. [1], pp. S43-S48. Publisher: EDITIONS SCIENTIFIQUES MEDICALES
 ELSEVIER. 23 RUE LINOIS, 75724 PARIS CEDEX 15, FRANCE. ISSN: 0399-077X.
 Pub. country: FRANCE. Language: French.
 ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
- AB The treatment of coinfection with the hepatitis C virus (HCV) in HIV-infected patients was rarely discussed before the era of the HIV protease inhibitors, since the response to monotherapy with interferon alpha (INF alpha) was poor, with a mean prognosis of the HIV disease estimated at around ten years. In the present context, monitoring is reconsidered. The HIV-associated immunosuppression may be responsible fora false negativity of some serologic tests for HCV. The

HIV-HCV coinfection increases the risk of maternofoetal transmission of HCV. Studies evaluating the influence of the HIV coinfection on the natural history of the HCV infection show its deleterious role. The

immune

restoration obtained with the highly active antiretroviral therapies is not linked with a decrease of the HCV viral load. The HIV-HCV coinfection is responsible for a threefold increase of the risk of elevation of seric transaminases when an antiretroviral treatment is given. The immune restoration obtained with an antiretroviral treatment may reveal the HCV infection and favor a rapid aggravation of hepatic histology and evolution

toward cirrhosis. HCV-associated complications may become a major factor of morbidity and mortality, leading to the need for an anti-hepatitis C treatment in HIV-infected patients. The combination of INF alpha and ribavirin seems to be the best treatment,

Its

efficacy and tolerability must be evaluated in HIV-infected patients.

Drug

interactions are likely to occur, and INF alpha, like ribavirin, may favor

CD4 lymphopenia. A new form of INF alpha with a prolonged half-life (PEG-INF alpha) seems to be promising. (C) 2000 Editions scientifiques et medicales Elsevier SAS.

L27 ANSWER 15 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
2000:235966 The Genuine Article (R) Number: 295LU. Pathogenesis, diagnosis and management of hepatitis C. Boyer N; Marcellin P
(Reprint). HOP BEAUJON, SERV HEPATOL, CTR RECH CLAUDE BERNARD HEPATITES VIRALES, 100 BD GEN LECLERC, F-92110 CLICHY, FRANCE (Reprint); HOP BEAUJON, SERV HEPATOL, CTR RECH CLAUDE BERNARD HEPATITES VIRALES, F-92110 CLICHY, FRANCE; HOP BEAUJON, INSERM, U481, F-92110 CLICHY, FRANCE.

JOURNAL

OF HEPATOLOGY (JAN 2000) Vol. 32, Supp. [1], pp. 98-112. Publisher: MUNKSGAARD INT PUBL LTD. 35 NORRE SOGADE, PO BOX 2148, DK-1016 COPENHAGEN,

DENMARK. ISSN: 0168-8278. Pub. country: FRANCE. Language: English. *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

The hepatitis C virus (HCV) is the leading cause of chronic liver disease worldwide. It is estimated that about 170 million people are chronically infected with HCV. Chronic hepatitis

C is a major cause of cirrhosis and hepatocellular carcinoma and HCV-related endstage liver disease is, in many countries, the first cause of liver transplantation.

HCV infection is characterized by its propensity to chronicity.

Because

of its high genetic variability, HCV has the capability to escape the immune response of the host. HCV is not directly cytopathic and liver lesions are mainly related to immune-mediated mechanisms, which are characterized by a predominant type 1 helper cell response. Co-factors influencing the outcome of the disease including age, gender and alcohol consumption are poorly understood and other factors such as immunologic and genetic factors may play an important role.

Recent studies have shown that the combination therapy with alpha interferon and ribavirin induces a sustained virological response in about 40% of patients with chronic hepatitis C. The

sustained response rates are mainly dependent on the viral genotype (roughly 60% in genotype non-1 and 30% in genotype 1).

Reliable diagnostic tools are now available and useful for detecting HCV infection, to quantify viral load and to determine the viral type.

The

assessment of the viral quasispecies and the characterization of viral sequences might be clinically relevant but standardized and simple techniques are needed.

The lack of animal models and of in vitro culture systems hampers the understanding of the pathogenesis of chronic hepatitis C and the development of new antivirals. New therapeutic schedules with higher and/or daily doses of alpha interferon do not seem to improve the efficacy greatly. The conjugation with polyethylene glycol (PEG) improved the pharmacodynamics and the efficacy of alpha interferon.

Emerging new therapies include inhibitors of viral enzymes (protease, helicase and polymerase), cytokines (IL-12 and IL-10), antisense oligonucleotides rand ribozymes. The first candidate compounds should be available in the next few years.

The development of an effective vaccine remains the most difficult and pressing challenge. Because of the high protein variability of HCV, protective vaccines could be extremely difficult to produce and therapeutic vaccines seem more realistic.

Considerable progress has been made in the held of HCV since its discovery 10 years ago but a major effort needs to be made in the next decade to control HCV-related liver disease.

L27 ANSWER 16 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)

1999:937758 The Genuine Article (R) Number: 260TU. Characteristics of hepatitis C-virus and viral predictors of therapeutical response. Ambrosch A (Reprint); Konig W. UNIV KLIN, INST MIKROBIOL, LEIPZIGER STR 44, D-39120 MAGDEBURG, GERMANY (Reprint); OTTO VON GUERICKE UNIV, INST MIKROBIOL, MAGDEBURG, GERMANY. MEDIZINISCHE KLINIK (15 NOV 1999

) Vol. 94, No. 11, pp. 626-632. Publisher: URBAN & VOGEL. LINDWURMSTRASSE 95, D-80337 MUNICH, GERMANY. ISSN: 0723-5003. Pub. country: GERMANY. Language: German.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB square Natural History of **Hepatitis C**-Infection and Viral Characteristics: **Hepatitis C**-virus (HCV) infection is a major cause of non-A, non-B-hepatitis and, additionally, is

associated with liver cirrhosis and hepato-cellular carcinoma. The high degree of chronificity of HCV-infection is reasonable due to antigenic variability of neutralizing epitopes leading to incomplete immunoresponse with sublity of neutralizing epitopes leading to incomplete immunoresponce

with subsequent virus persistence. Besides genetic variants of HCV within a virus population (quasispecies nature of HCV), different genotypes are classified being genetically and phenotypically distinct, and geographically restricted in part. Genotyping of HCV is not only important

for phylogenetic and epidemiological studies, but also a prodictive marker

for pathogenesis and therapy.

square Viral Predictors of HCV Therapy: In a meta-analysis of 18 therapeutical studies of chronical HCV infections, genotype 1 and high levels of viremia determined markedly the response to interferon therapy. In this context, clinical trials have proven the effect of a combined therapy with interferon and ribavirin. Especially patients with HCV genotype 1 or high levels of viremia had a real benefit from combined antiviral therapy in comparison to monotherapy with interferon.

square Conclusion and Future Concepts: Besides recent concepts improving the therapeutical response to HCV infection, further effort is necessary to develop more successful strategies for eradication of hepatitis C virus. In this context, variations of interferon therapy should be evaluated (e.g. higher and daily doses, longer duration of interferon therapy, ''retarded'' interferon (PEG-IFN). In addinon, new therapeutical concepts should be performed including a combination of interferon with other known antiviral agents (amantadine), a combination with immunomodulators (GM-CSF, thymosin alpha 1), the development of new antiviral agents (inhibitors of viral proteases, helicases and polymerases) and the exploration of anti-viral, molecular strategies (specific ribozymes, antisense oligonucleotides and DNA-vaccination). Nevertheless, the development of an effective vaccination should be the most important challenge for the future.

L27 ANSWER 17 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
1999:878608 The Genuine Article (R) Number: 239XE. Community-based treatment
of patients with chronic hepatitis C using
peginterferon alpha-2a (PEG-IFN): One center's
experience.. Reindollar R (Reprint); Purdum P; Thompson E; Hudson M;
Johnston P; Depamphilis J; Brunda M. CHARLOTTE CLIN GASTROINTESTINAL &
LIVER DIS, NUTLEY, NJ; HOFFMANN LA ROCHE INC, NUTLEY, NJ 07110.
HEPATOLOGY

(OCT 1999) Vol. 30, No. 4, Part 2, Supp. [S], pp. 1820-1820. Publisher:

B SAUNDERS CO. INDEPENDENCE SQUARE WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399. ISSN: 0270-9139. Pub. country: USA.

Language: English.

L27 ANSWER 18 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)

1999:877416 The Genuine Article (R) Number: 239XE. Multinational evaluation of the efficacy and safety of once-weekly peginterferon alpha-2A (PEG-IFN) in patients with chronic hepatitis

C (CHC) with compensated cirrhosis.. Heathcote E J (Reprint);
Shiffman M L; Cooksley G; Dusheiko G M; Lee S S; Balart L; Reindollar R; Reddy R; Wright T; Dephamphilis J. TORONTO WESTERN HOSP, TORONTO, ON M5T 2S8, CANADA; VIRGINIA COMMONWEALTH UNIV, MED COLL VIRGINIA, RICHMOND, VA 23298; ROYAL BRISBANE HOSP, BRISBANE, QLD 4029, AUSTRALIA; ROYAL FREE HOSP, LONDON NW3 2QG, ENGLAND; HERITAGE MED RES CLIN, CALGARY, AB, CANADA;

MEM MED CTR, NEW ORLEANS, LA; CHARLOTTE CLIN GASTROINTESTINAL & LIVER DIS,

CHARLOTTE, NC; UNIV MIAMI, SCH MED, MIAMI, FL; UNIV CALIF SAN FRANCISCO, SAN FRANCISCO, CA 94143; HOFFMANN LA ROCHE INC, ROCHE PEGINTERFERON ALPHA 2A INT STUDY GRP, NUTLEY, NJ 07110. HEPATOLOGY (OCT 1999) Vol. 30, No. 4,

- Part 2, Supp. [S], pp. 621-621. Publisher: W B SAUNDERS CO. INDEPENDENCE SQUARE WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399. ISSN: 0270-9139. Pub. country: CANADA; USA; AUSTRALIA; ENGLAND. Language: English.
- L27 ANSWER 19 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
 1999:876939 The Genuine Article (R) Number: 239XE. Combination therapy with
 peginterferon alpha-2a (PEG-IFN) and ribavirin in the
 treatment of patients with chronic hepatitis C (CHC):
 A phase II open-label study. Sulkowski M (Reprint); Reindollar R; Yu J.
 JOHNS HOPKINS UNIV, SCH MED, BALTIMORE, MD; CHARLOTTE CLIN
 GASTROINTESTINAL & LIVER DIS, CHARLOTTE, NC; HOFFMANN LA ROCHE INC,
 NUTLEY, NJ 07110. HEPATOLOGY (OCT 1999) Vol. 30, No. 4, Part 2, Supp.
- pp. 145-145. Publisher: W B SAUNDERS CO. INDEPENDENCE SQUARE WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399. ISSN: 0270-9139. Pub. country: USA. Language: English.
- L27 ANSWER 20 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
 1999:876914 The Genuine Article (R) Number: 239XE. A branched methoxy 40 KDA
 polyethylene glycol (PEG) moiety optimizes the
 pharmacokinetics (PK) of peginter-feron alpha-2A (PEGIFN) and may explain its enhanced efficacy in chronic
 hepatitis C (CHC).. Algranati N E (Reprint); Sy S; Modi
 M. HOFFMANN LA ROCHE INC, NUTLEY, NJ 07110. HEPATOLOGY (OCT 1999) Vol.
- 30,
 No. 4, Part 2, Supp. [S], pp. 120-120. Publisher: W B SAUNDERS CO. INDEPENDENCE SQUARE WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399. ISSN: 0270-9139. Pub. country: USA. Language: English.
- L27 ANSWER 21 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
 1999:691833 The Genuine Article (R) Number: 232MG. Developments in
 hepatitis C during 1997-1999. Poordad F F (Reprint);
 Gish R G. JOHNS HOPKINS UNIV, SCH MED, DEPT MED, DIV GASTROENTEROL, 1830
 E.
- MONUMENT ST, 423, BALTIMORE, MD 21205 (Reprint). EXPERT OPINION ON THERAPEUTIC PATENTS (SEP 1999) Vol. 9, No. 9, pp. 1249-1262. Publisher: ASHLEY PUBL LTD. 1ST FL, THE LIBRARY, 1 SHEPHERDS HILL HIGHGATE, LONDON N6
 - 5QJ, ENGLAND. ISSN: 1354-3776. Pub. country: USA. Language: English. *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*
- Hepatitis C has became an area of intensive research over the past several years. With current worldwide prevalence estimated at 150 to 200 million people, and with almost four million Americans infected, ii is a major public health issue [1]. Of those infected, over 85% will develop chronic infection [2,3]. of those who develop chronic infection, 20% will develop cirrhosis, and in the cirrhotic population, 20% develop hepatocellular carcinoma [4]. It is still difficult in the early stages of disease to determine who is at
- of developing cirrhosis, and therefore who would benefit most from therapy. manifestations of the disease that lead clinicians to initiate therapy [5]. The However, even in the non-cirrhotic individual, there are many symptomatic ultimate goal of treatment is to achieve sustained eradication of the virus. Until recently, the mainstay of treatment has

been interferon (IFN-) monotherapy, which is less than 25% effective and is generally accompanied by side effects. Newer therapeutic modalities focus on less toxic compounds, targeting viral proteins such as protease or helicase, or viral genomic segments with antisense peptides and ribozymes. This chapter is an overiview of the patent literature from

to mid-1999 and discusses possible new treatement options including vaccines and delivery systems to cells (Figure 1).

L27 ANSWER 22 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
1999:626397 The Genuine Article (R) Number: 224LA. Detection and characterization of antibodies to PEG-IFN-alpha 2b using surface plasmon resonance. Takacs M A; Jacobs S J (Reprint);
Bordens R M; Swanson S J. SCHERING PLOUGH CORP, RES INST, 2015 GALLOPING HILL RD, MSK-15-2700, KENILWORTH, NJ 07033 (Reprint); SCHERING PLOUGH CORP, RES INST, KENILWORTH, NJ 07033. JOURNAL OF INTERFERON AND CYTOKINE RESEARCH (JUL 1999) Vol. 19, No. 7, pp. 781-789. Publisher: MARY ANN LIEBERT INC PUBL. 2 MADISON AVENUE, LARCHMONT, NY 10538. ISSN: 1079-9907.

Pub. country: USA. Language: English. *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

AΒ Some patients treated with type I interferon (IFN) preparations develop neutralizing antibodies that may abrogate any clinical benefit. We have a new complex of polyethylene glycol(12000) and IFN-alpha 2b (PEG-IFN-alpha 2b) in clinical trials and need to be able to detect any antibodies formed specifically against the complex, We have, therefore, devised a method based on measurement of surface plasmon resonance (SPR) in the BIACORE 2000 (TM) apparatus. PEG-IFN-alpha 2b is anchored to one flow cell on the sensor chip, IFN-alpha 2b to another, and PEG to a third. A 20 mu 1 serum sample flows in turn through the three cells, which are optically scanned. Any antibodies in the serum bind to the corresponding immobilized antigen, and a change in the optical signal is generated. With appropriate specific reagents, their immunoglobulin isotype can be similarly established. The automated assay can quickly test numerous sera. Very little serum is needed, and the

assay is reliable and precise and can detect low-affinity antibodies.

L27 ANSWER 23 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
1999:448118 The Genuine Article (R) Number: 187GJ. A controlled, randomized, multicenter, descending dose phase II trial of pegylated interferon alfa-2a (PEG) vs standard interferon alfa-2a (IFN) for treatment of chronic hepatitis

C. Shiffman M (Reprint); Pockros P J; Reddy R K; Wright T L; Reindollar R; Fried M W; Purdum P P; Everson G; Pedder S. VIRGINIA COMMONWEALTH UNIV, MED COLL VIRGINIA, RICHMOND, VA 23298; SCRIPPS CLIN & RES INST, LA JOLLA, CA; VET AFFAIRS MED CTR, SAN FRANCISCO, CA 94121; UNIV

MIAMI, MIAMI, FL 33152; CHARLOTTE CLIN, CHARLOTTE, ND; UNIV N CAROLINA, CHAPEL HILL, NC; UNIV COLORADO, DENVER, CO 80202; F HOFFMANN LA ROCHE & CO

LTD, PEG IFN ALFA 2A CLIN STUDY GRP, NUTLEY, NJ. GASTROENTEROLOGY (APR 1999) Vol. 116, No. 4, Part 2, pp. L0418-L0418. Publisher: W B SAUNDERS

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1997

. INDEPENDENCE SQUARE WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399. ISSN: 0016-5085. Pub. country: USA. Language: English.

L27 ANSWER 24 OF 24 SCISEARCH COPYRIGHT 2001 ISI (R)
1999:445782 The Genuine Article (R) Number: 187GJ. The pharmacokinetics of pegylated-40K interferon alfa-2a (PEG-IFN) in chronic hepatitis C (CHC) patients with cirrhosis.

Heathcote E J (Reprint); Pockros P J; Fried M W; Bain M A; DePamphilis J; Modi M. TORONTO HOSP, TORONTO, ON M5T 2S8, CANADA; SCRIPPS CLIN & RES INST, LA JOLLA, CA; UNIV N CAROLINA, CHAPEL HILL, NC; F HOFFMANN LA ROCHE LTD, PEG IFN ALFA CLIN STUDY GRP A, NUTLEY, NJ. GASTROENTEROLOGY (APR 1999

) Vol. 116, No. 4, Part 2, pp. G3190-G3190. Publisher: W B SAUNDERS CO. INDEPENDENCE SQUARE WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399. ISSN: 0016-5085. Pub. country: CANADA; USA. Language: English.

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Page 38

Prepared by M. Hale 308-4258

REP G1=(4-4) CH2 NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

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STEREO ATTRIBUTES: NONE

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5 ANSWERS

L30 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2001 ACS RN 322725-90-6 REGISTRY Poly(oxy-1,2-ethanediyl), CN .alpha.,.alpha.'-[[(1S)-1-[[[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethyl]amino]carbonyl]-1,5pentanediyl]bis(iminocarbonyl)]bis[.omega.-methoxy- (9CI) (CA INDEX NAME) MF (C2 H4 O)n (C2 H4 O)n C19 H29 N5 O8 CI PMS PCT Polyether SR CA LC STN Files: CA, CAPLUS

Page 39

$$-CH_2$$
 OMe OCH₂ $-CH_2$ OMe

2 REFERENCES IN FILE CA (1967 TO DATE) 2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:143876 Protease conjugates having sterically protected epitope regions and their uses in cleaning and personal care compositions.

Rubingh, Donn Nelton; Weisgerber, David John; Correa, Paul Elliott (The Procter & Gamble Company, USA). PCT Int. Appl. WO 2001007577 A2 20010201,

40 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG,

BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-US18854 20000711. PRIORITY: US 1999-PV144979 19990722.

AB The present disclosure relates to subtilisin protease conjugate comprising

a protease moiety and one or more addn. moieties. Each addn. moiety is covalently attached to an epitope protection position of the protease moiety. The protease conjugates have decreased immunogenicity relative

a parent protease. The present disclosure further relates to cleaning and

personal care compns. comprising the protease conjugates.

REFERENCE 2: 134:143874 Protease conjugates having sterically protected clip

sites and reduced immunogenicity and their use in cleaning and personal care compositions. Weisgerber, David John; Rubingh, Donn Nelton; Correa, Paul Elliott (The Procter & Gamble Company, USA). PCT Int. Appl. WO 2001007484 A2 20010201, 38 pp. DESIGNATED STATES: W: AE, AG, AL, AM,

AT,

AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES,

FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-US18855 20000711. PRIORITY: US 1999-PV144981 19990722.

AB The present disclosure relates to subtilisin protease conjugate comprising

a protease moiety and one or more addn. moieties. Each addn. moiety is covalently attached to a clip site protection position of the protease moiety, wherein the clip site protection positions are selected from 13, 14, 15, 16, 18, 19, 20, 21, 84, 85, 88, 158, 159, 160, 161, 162, 163,

164,

165, 170, 186, 191, 192, 193, 194, 196, 259, 260, 261, 262, and 274

corresponding to subtilisin BPN'. The protease conjugates have decreased immunogenicity relative to a parent protease. The present disclosure further relates to cleaning and personal care compns. comprising the protease conjugates.

L30 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2001 ACS

RN 266317-46-8 REGISTRY

CN Poly(oxy-1,2-ethanediyl), .alpha.-[[[1-[(butylamino)carbonyl]-5-(carboxyamino)pentyl]amino]carbonyl]-.omega.-methoxy-, ester with .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) (2:1) (9CI) (CAINDEX NAME)

MF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C26 H48 N6 O9

CI PMS

PCT Polyether

SR CAS Registry Services

PAGE 1-A

PAGE 1-B

$$\begin{array}{c|c} O & \hline \\ NH-C & \hline \\ O-CH_2-CH_2 \\ \hline \\ O \\ \hline \\ (CH_2)_4-CH-C-NHBu-n \end{array}$$

L30 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2001 ACS RN 266316-83-0 REGISTRY

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L30 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2001 ACS
RN
     244287-86-3 REGISTRY
     Poly(oxy-1,2-ethanediyl),
CN
.alpha.,.alpha.'-[[(1S)-1-[[[2-[[3-(2,5-dihydro-
     2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethyl]amino]carbonyl]-1,5-
     pentanediyl]bis(iminocarbonyloxy-2,1-ethanediyl)]bis[.omega.-methoxy-
     (9CI) (CA INDEX NAME)
MF
     (C2 H4 O)n (C2 H4 O)n C23 H37 N5 O10
CI
     PMS
PCT
     Polyether
SR
     CA
LC
     STN Files:
                  CA, CAPLUS
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$$-CH_2-CH_2$$
 OMe OMe $-CH_2-CH_2$ OMe

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:254330 Protease conjugates with reduced immunogenicity for cleaning and personal care compositions. Weisberger, David John; Rubingh,

Donn Nelton; Correa, Paul Elliott (The Procter & Gamble Company, USA).
PCT Int. Appl. WO 9948918 A1 19990930, 45 pp. DESIGNATED STATES: W: AU,
BR, CA, CN, CZ, CZ, JP, KR, MX; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR,
GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2.
APPLICATION: WO 1999-IB511 19990325. PRIORITY: US 1998-48174 19980326;

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1998-88912 19980602.

AB The present invention relates to subtilisin protease conjugates comprising

a protease moiety and one or more addn. moieties wherein the protease moiety has a modified amino acid sequence of a parent amino acid sequence.

The parent amino acid sequence comprises a first epitope region, a second epitope region, and a third epitope region, wherein the modified amino acid sequence comprises a substitution by a substituting amino acid at

or more positions in one or more of the epitope regions and wherein each addn. moiety is covalently attached to one of the substituting moieties. Thus, prominent epitope regions at amino acid positions 70-84, 103-126, and 217-252 in subtilisin BPN' may be substituted and/or chem. modified

alleviate the immunogenic properties of the protease. A variant of subtilisin BPN' with a substitution of leucine for tyrosine at position 217 and a substitution of cysteine for serine at position 78 is conjugated

at the cysteine-SH with monomethyl (or dimethyl) polyethylene glycol maleimide. Similarly, succinimide-protected polymer may be coupled selectively to lysine in one or more of the epitope regions. Such subtilisin-like proteases evoke a decreased immunogenic response yet maintain their activity as an efficient and active proteases. The

invention further relates to cleaning and personal care compns. comprising

such protease conjugates.

L30 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2001 ACS

RN 204184-14-5 REGISTRY

CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[[[1-[[3-[[[2-[7-[1,3-dihydro-

3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-

dimethyl-1-(4-sulfobutyl)-3H-indolium-5-yl]carbonyl]amino]propyl]amino]car
bonyl]-1,5-pentanediyl]bis(iminocarbonyl)]bis[.omega.-methoxy-, inner
salt, monosodium salt (9CI) (CA INDEX NAME)

MF (C2 H4 O)n (C2 H4 O)n C49 H68 N6 O12 S2 . Na

CI PMS

PCT Polyether

SR CA

LC STN Files: CA, CAPLUS

PAGE 1-A

Na

PAGE 1-B

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 128:218365 Synthesis and characterization of cyanine dye poly(ethylene glycol) conjugates as contrast agents for in vivo fluorescence imaging. Licha, Kai; Riefke, Bjorn; Semmler, Wolfhard (Institut fur Diagnostikforschung GmbH an der Freien Universitat Berlin, Berlin, D-14050, Germany). Proc. SPIE-Int. Soc. Opt. Eng., 3196(Optical and Imaging Techniques for Biomonitoring III), 98-102 (English) 1998. CODEN: PSISDG. ISSN: 0277-786X. Publisher: SPIE-The International Society for Optical Engineering.

AB Cyanine dyes are promising near-IR contrast agents because of their high molar absorption between 700 and 1000 nm, minimal phototoxicity, and convenient synthetic availability. It is known that the derivatization

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drugs or contrast agents with polyethylene glycol residues leads to enhanced retention in tumor tissue. The purpose of this study was to generate derivs. of an indotricarbocyanine dye with improved pharmacol. properties enabling in vivo fluorescence detection of tumors. Several hydrophilic indotricarbocyanine-polyethylene glycol conjugates of different mol. wt. were synthesized and characterized physicochem. (partition coeffs., mass distribution) and photophys. (absorption and fluorescence properties in physiol. media) in order to test their applicability as near IR contrast media.

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               3 ZAHM F?/AU, IN AND HEPATITIS C INFECT?
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                3 DUP REM L38 (0 DUPLICATES REMOVED)
=> d 1-3 cbib abs
L39 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2001 ACS
                Document No. 132:30856 Use of PEG-IFN-alpha and ribavirin for
1999:795668
      the treatment of chronic hepatitis. Zahm, Friederike (F.
     Hoffmann-La Roche A.-G., Switz.). PCT Int. Appl. WO 9964016 A1 19991216, 15 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR,
BY,
      CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID,
      IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG,
      MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
      TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM;
     RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB,
      GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English).
      CODEN: PIXXD2. APPLICATION: WO 1999-EP3746 19990529. PRIORITY: EP
      1998-110433 19980608.
     The present invention provides the use of PEG-IFN-.alpha. conjugates in
AΒ
      assocn. with Ribavirin for the manuf. of medicaments for the treatment of
      chronic hepatitis C infections. The present
      invention also provides a method for treating chronic hepatitis
      C infections in patients in need of such treating
      comprising administering an amt. of PEG-IFN-.alpha. conjugate in assocn.
      with an amt. of ribavirin effective to treat hepatitis C.
L39 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2001 ACS
1999:219998
                Document No. 130:218268 Use of interferon-.alpha. (IFN-.alpha.)
      and amantadine for the treatment of chronic hepatitis C. Zahm,
      Friederike (F. Hoffmann-La Roché A.-G., Switz.). PCT Int. Appl. WO
     9913894 A2 19990325, 11 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
     LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG.
      (English). CODEN: PIXXD2. APPLICATION: WO 1998-EP5797 19980911.
      The invention provides the use of IFN-.alpha. in assocn. with amantadine
      for the manuf. of medicaments for the treatment of chronic
     hepatitis C infections. The invention also
      provides medicaments contg. the IFN-.alpha. and amantadine as a combined
      prepn. for simultaneous, sep. or sequential use in therapy of chronic
     hepatitis C infections. The invention further
      provides a method for treating chronic hepatitis C
      infections in patients in need of such treatment comprising
      administering an amt. of IFN-.alpha. in assocn. with an amt. of
amantadine
```

effective to treat hepatitis C.

L39 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2001 BIOSIS
1999:434997 Document No.: PREV199900434997. Chronic hepatitis C: Interferon retreatment of relapsers. A meta-analysis of individual patient data.
Camma, Calogero (1); Giunta, Marco; Chemello, Liliana; Alberti, Alfredo; Toyoda, Hidenori; Trepo, Christian; Marcellin, Patrick; Zahm,
Friederike; Schalm, Solko; Craxi, Antonio. (1) Piazza della Cliniche

Friederike; Schalm, Solko; Craxi, Antonio. (1) Piazza della Cliniche 2, Clinica Medica I, 90100, Palermo Italy. Hepatology, (Sept., 1999) Vol. 30, No. 3, pp. 801-807. ISSN: 0270-9139. Language: English. Summary Language: English.

AB Relapse after interferon (IFN) therapy for chronic hepatitis C virus (HCV)

infection occurs in 50% of patients after the initial response. The benefit of retreatment with IFN alone has not been assessed in large controlled studies. To assess the effectiveness and the tolerability of IFN retreatment and to identify the optimal second course regimen, we performed a meta-analysis of individual patient's data on a set of 549 patients (mean age 43.8 years; 12.2 SD, men: 65%) who had an end-of-treatment biochemical response to a first IFN course and then relapsed. Retreatment was started within 24 months after the end of the first course. Biochemical end-of-treatment responses (ETR) and sustained responses (SR) were observed in 405 of 549 (73.8%; 95% confidence interval

(CI) 70.1-77.5) and in 124 of 549 (22.6%; CI 19.1-26.1) patients, respectively. One hundred seventy-five of 404 patients (43.3%; CI 38.6-48.2) developed an end-of-treatment, biochemical, and virological response when retreated. A biochemical and virological SR to retreatment occurred in 73 of 494 (14.8%; CI 11.7-18) patients. Thirty-two patients (5.8%; CI 3.5-7.8) stopped retreatment for adverse effects. Biochemical and virological SR was predicted independently by logistic regression analysis using a negative HCV RNA at the end of the first cycle of IFN (P = .01) and by retreatment with a high IFN dose (P = .03). Age, cirrhosis, genotype, and gamma-glutamyl transferase levels before retreatment were not significant by multivariate analysis. The excellent tolerability of IFN monotherapy retreatment makes it an option for patients who transiently cleared HCV-RNA during their first IFN course. Patients should

be retreated with a high IFN dose regardless of the strength of the dose received during the previous course of treatment.

=> del his y

=> fil reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	20.93	1446.29
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY -1.18	SESSION -18.65

Page 47

Prepared by M. Hale 308-4258

=> fil hcaplus

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FILE COVERS 1967 - 24 Nov 2000 VOL 133 ISS 23 FILE LAST UPDATED: 23 Nov 2000 (20001123/ED)

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1619 SEA FILE=REGISTRY ABB=ON PLU=ON POLYETHYLENE GLYCOL?/CN OR L2POLYETHYLENEGLYCOL? 896 SEA FILE=REGISTRY ABB=ON PLU=ON PEG? 1.3 9 SEA FILE=REGISTRY ABB=ON PLU=ON IFN.ALPHA./BI T.4 262 SEA FILE=REGISTRY ABB=ON PLU=ON L4 OR INTERFERON .ALPHA.?/CN L5L6 18 SEA FILE=REGISTRY ABB=ON PLU=ON RIBAVIRIN? L7 358819 SEA FILE=HCAPLUS ABB=ON PLU=ON L2 OR L3 OR PEG? OR (POLY(W)ET HYLENE OR POLYETHYLENE) (5A) GLYCOL OR POLYETHYLENEGLYCOL? L8 16615 SEA FILE=HCAPLUS ABB=ON PLU=ON L5 OR (IFN OR INTERFERON) (5A) A LPHA? L9 1328 SEA FILE=HCAPLUS ABB=ON PLU=ON L6 OR RIBAVIRIN? L10 90 SEA FILE-HCAPLUS ABB=ON PLU=ON L7(L)L8 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND L9 L11

=> d ibib abs hitrn 111 1-10

L11 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2000 ACS ACCESSION NUMBER: 2000:790325 HCAPLUS TITLE: PEGylated interferon-.

alpha.-CCR5 antagonist combination HIV therapy

INVENTOR(S): Laughlin, Mark A.

Schering Corporation, USA PATENT ASSIGNEE(S): SOURCE: PCT Int. Appl., 80 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

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LANGUAGE:
                             English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
                    KIND DATE
     PATENT NO.
                                                 APPLICATION NO. DATE
     -----
                        ____
                                -----
                                                 -----
     WO 2000066141 A2 20001109 WO 2000-US11634 20000501
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:
                                                 US 1999-304897 19990504
     The invention discloses the use of a PEGylated
ΑB
     interferon-.alpha. and a CCR5 antagonist, further in
     assocn. with at least one of ribavirin, IL-2, IL-12, pentafuside
     alone or in combination with an anti-HIV-1 drug therapy, e.g., HAART
      (highly active antiretroviral therapy), for prepn. of a medicament for the
     treatment of HIV-1 infections as well as HIV-1 infections and HCV
     co-infections in treatment-naive as well as treatment-experienced adult
     and pediatric patients.
     25322-68-3D, PEG, interferon .alpha.
IT
     conjugates 36791-04-5, Ribavirin
     RL: BAC (Biological activity or effector, except adverse); THU
      (Therapeutic use); BIOL (Biological study); USES (Uses)
         (PEGylated interferon-.alpha.-CCR5
         antagonist combination HIV therapy)
L11 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 2000:755216 HCAPLUS
                            133:317537
DOCUMENT NUMBER:
                            Hepatitis C virus (HCV) combination therapy,
TITLE:
                            containing ribavirin in association with
                            antioxidants
                            Brass, Clifford A.; Glue, Paul W.; Piken, Edward
INVENTOR(S):
                           Schering Corporation, USA
PATENT ASSIGNEE(S):
SOURCE:
                            Eur. Pat. Appl., 16 pp.
                            CODEN: EPXXDW
DOCUMENT TYPE:
                            Patent
                            English
LANGUAGE:
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
     PATENT NO. KIND DATE APPLICATION NO. DATE
                                           EP 2000-303246 20000418
     EP 1046399 A1 20001025
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO
     WO 2000062799
                                                 WO 2000-US10240 20000418
                        A1 20001026
              AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
              CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN,
               IS, JP, KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN,
              MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
              TZ, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
               DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
               CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
```

US 1999-294687 PRIORITY APPLN. INFO.: 19990419 Methods are disclosed for treating patients having susceptible viral AΒ infections, esp. chronic hepatitis C infection, by administering to the patient a therapeutically effective amt. of a combination therapy of interferon-.alpha. and ribavirin for a time sufficient to lower HCV-RNA in assocn. with a therapeutically effective amt. of an antioxidant 4) (

therapy)

```
for a time sufficient to ameliorate ribavirin-related hemolysis.
     36791-04-5, Ribavirin
ΙT
     RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or
     effector, except adverse); THU (Therapeutic use); BIOL (Biological study);
     USES (Uses)
        (hepatitis C virus combination therapy contg. interferon .alpha. and
      ribavirin in assocn. with antioxidant)
REFERENCE COUNT:
REFERENCE(S):
                         (1) Brass; GASTROENTEROLOGY, PART 2, DIGESTIVE DISEASE
                             WEEK AND THE 100TH ANNUAL MEETING OF THE AMERICAN
                             GASTROENTEROLOGICAL ASSOCIATION ORLANDO 1999,
                             V116(4), PA1192
                         (2) Najarian, T; WO 9819670 A 1998
L11 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2000 ACS
                         2000:628016 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         133:206775
TITLE:
                        HIV therapy using pegylated interferon-alfa alone and
                        in assocn. with anti-HIV-1 drug therapy
                        Laughlin, Mark A.; Glue, Paul W.; Stalgis, Carlos O.
INVENTOR(S):
PATENT ASSIGNEE(S):
                        Schering Corporation, USA
                        PCT Int. Appl., 45 pp.
SOURCE:
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
     PATENT NO.
                 KIND DATE
                                        APPLICATION NO. DATE
                           -----
                                          _____
    WO 2000051631 A2 20000908 WO 2000-US5361 20000301
        W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CZ,
            DE, DK, DM, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP,
            KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, NO,
            NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
            US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
            DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
            CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     JP 2000256211
                      A2
                           20000919
                                         JP 2000-55695
                                                           20000301
                                         EP 2000-301695
                                                         20000302
     EP 1034790
                      A2
                           20000913
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
PRIORITY APPLN. INFO.:
                                          US 1999-260388
                                                         19990302
                                          US 1999-268521 19990312
                                          US 1999-288358
                                                          19990408
                                          US 1999-454004
                                                          19991203
    The uses of pegylated interferon-alfa, alone, and in assocn. with an
AB
    anti-HIV-1 drug therapy, and ribavirin for the prepn. of a
    medicament for treating treatment-naive as well as treatment-experienced
     adult and pediatric patients having HIV-1 infections as well as patients
     co-infected with HIV-1 and hepatitis C virus (HCV) involving comprising a
     therapeutically effective amt. of pegylated interferon-alfa, e.g.,
    pegylated interferon alfa-2b as monotherapy or preferably in assocn. with
     a therapeutically effective amt. of at least one of ribavirin,
     IL-2, IL-12, pentafuside alone or in combination with a therapeutically
     effective amt. of an anti-HIV-1 drug therapy, e.g., HAART are disclosed.
ΙT
    36791-04-5, Ribavirin 77907-69-8D,
     Interferon-alfa 2a, pegylated 98530-12-2D,
     Interferon-alfa 2b, pegylated
     RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (HIV-1 therapy using pegylated interferon-alfa alone and in
        assocn. with anti-HIV-1 drug therapy in relation to hepatitis C virus
```

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Jiang 09317688
L11 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2000 ACS
                          2000:517041 HCAPLUS
ACCESSION NUMBER:
                          133:260951
DOCUMENT NUMBER:
TITLE:
                          Firstline treatment for hepatitis C: Combination
                          interferon/ribavirin versus interferon
                          monotherapy
                          Lai, Ming-Yang
AUTHOR(S):
                          Graduate Institute of Clinical Medicine, National
CORPORATE SOURCE:
                          Taiwan University College of Medicine, Taipei, Taiwan J. Gastroenterol. Hepatol. (2000), 15(Suppl.),
SOURCE:
                          E130-E133
                          CODEN: JGHEEO; ISSN: 0815-9319
                          Blackwell Science Asia Pty Ltd.
PUBLISHER:
                          Journal; General Review
DOCUMENT TYPE:
LANGUAGE:
                          English
     A review with 26 refs. In the initial treatment of chronic hepatitis C,
     interferon-alfa (IFN-.alpha.) monotherapy for
     24-48 wk induces sustained response rates of only 10-20%. Combination
     therapy with IFN-.alpha. plus ribavirin
     induces a sustained response in 40-50% of patients, and can be now
     recommended as the first-line therapy for chronic hepatitis C. Stopping
     therapy at week 12 because of persistent viremia is unnecessary with the
     combination therapy because later clearance of HCV RNA can still occur
     with a sustained response. Patients with HCV genotype 1 should receive 48 wk of combination therapy, in contrast to 24 wk for patients with
     genotypes 2 or 3. For patients who cannot tolerate the side effects of
     ribavirin, such as anemia, IFN-.alpha. at 3 MU
     three times weekly for 48 wk is preferred as the initial therapy.
     long-acting pegylated IFN can be expected to enhance the
     efficacy of combination therapy in the treatment of chronic hepatitis C
     and appears to be much more potent as monotherapy. Further studies are
     needed to improve the current "half-full" status of chronic hepatitis C
     treatment.
     36791-04-5, Ribavirin
ΙT
     RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or
     effector, except adverse); BIOL (Biological study)
        (combination interferon and ribavirin vs. interferon
        monotherapy for hepatitis C)
L11 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER:
                          2000:441658 HCAPLUS
DOCUMENT NUMBER:
                          133:84228
TITLE:
                          Ribavirin-PEGylated
                        interferon-.alpha. induction
                          hepatitis C virus combination therapy
INVENTOR(S):
                          Glue, Paul W.; Albrecht, Janice K.
                          Schering Corporation, USA
PATENT ASSIGNEE(S):
                          PCT Int. Appl., 33 pp.
SOURCE:
                          CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
LANGUAGE:
                          English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     Ρ.
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PATENT			KI	ND I	DATE			A	PPLI	CATIO	ои ис	ο.	DATE			
WO 2000 WO 2000					2000 2000			W	0 19	99-U:	s279:	35	1999	1216		
W:	DE, KG, NZ,	DK, KR,	DM, KZ, PT,	EE, LC,	ES, LK,	FI, LR,	GB, LT,	GD, LU,	GE, LV,	HR, MA,	HU, MD,	ID, MG,	CH, IL, MK, TR,	IN, MN,	IS, MX,	JP, NO,
RW:	DK,	ES,	FI,	FR,	-	GR,	IE,	IT,	LU,	MC,	NL,	PT,	BE, SE,			

```
US 1998-215876
                                                           19981218
PRIORITY APPLN. INFO.:
    The invention discloses the use of ribavirin and
     interferon-.alpha. for the manuf. of pharmaceutical
    compns. for treating a patient having chronic hepatitis C infection, e.g.,
     a patient having HCV genotype 1, 2 or 3, to eradicate detectable HCV RNA
    by a method comprising administering an effective amt. of
    ribavirin in assocn. with an effective amt. of PEGylated
     interferon-.alpha., characterized in that treating
    patients having chronic hepatitis C infections is effected in two
     treatment periods: (a) a first treatment period wherein a therapeutically
     effective amt. of ribavirin and a therapeutically effective
     induction dosing amt. of PEGylated interferon-.
    alpha., e.g. PEGylated interferon-.
    alpha.2b sufficient to at least substantially lower, and
    preferably to eradicate, detectable HCV RNA, are administered; and (b) a
    second treatment period of at least 20-30 wk wherein a therapeutically
    effective amt. of ribavirin and a therapeutically effective amt.
    of PEGylated interferon-.alpha. are
     administered sufficient to maintain no detectable HCV RNA for at least
     20-30 wk are administered after the end of the first treatment period and
    to maintain no detectable HCV RNA for at least 24 wk after the end of the
     second treatment period.
IT
     25322-68-3D, Polyethylene glycol,
     interferon-.alpha. conjugates 36791-04-5,
    Ribavirin
    RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (ribavirin-PEGylated interferon-
      .alpha. induction hepatitis C virus combination therapy)
L11 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2000 ACS
                       2000:441644 HCAPLUS
ACCESSION NUMBER:
                        133:72952
DOCUMENT NUMBER:
                        Treatment of hepatitis C virus infections with
TITLE:
                        interleukin-10
                        Grint, Paul C.; Nelson, David R.; Davis, Gary L.
INVENTOR(S):
                        Schering Corporation, USA
PATENT ASSIGNEE(S):
                        PCT Int. Appl., 21 pp.
SOURCE:
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
                        English
LANGUAGE:
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
    PATENT NO.
                 KIND DATE
                                         APPLICATION NO. DATE
                    A2 20000629
    WO 2000037096
                                         WO 1999-US27952 19991220
        W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CZ,
             DE, DK, DM, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP,
             KG, KR, KZ, LC, LK, LR, LT, LU, LV, MA, MD, MG, MK, MN, MX, NO,
             NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
             UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
            CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                           US 1998-218842 19981222
PRIORITY APPLN. INFO.:
                                           US 1999-293742
                                                          19990416
                                           US 1999-425716
                                                          19991022
     The hepatoprotective effect of IL-10 is described, in particular, the use
     of interleukin-10 in the treatment of liver damage (e.g. fibrosis or
     cirrhosis) in a difficult-to-treat patient afflicted with chronic
     hepatitis C virus infection who has failed to respond to, or achieve a
     sustained virol. response to an anti-HCV therapy (e.g., interferon-.alpha.
     in combination with ribavirin).
ΙT
     25322-68-3D, PEG12000, interferon
     alpha conjugate 36791-04-5, Ribavirin
```

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (treatment of hepatitis C virus infections with interleukin-10)

L11 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2000 ACS ACCESSION NUMBER: 2000:383906 HCAPLUS

DOCUMENT NUMBER:

133:22443

TITLE:

17-Ketosteroids and derivatives, metabolites and

precursors in the treatment of hepatitis C virus and

other togaviruses

INVENTOR(S):

Ahlem, Clarence Nathaniel; Frincke, James Martin;

Prendergast, Patrick T.

PATENT ASSIGNEE(S):

Hollis-Eden Pharmaceuticals, Inc., USA; Colthurst Ltd

SOURCE:

PCT Int. Appl., 99 pp.

DOCUMENT TYPE:

CODEN: PIXXD2

LANGUAGE:

Patent English

DANGUAGE:

Engi

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.			KIND DATE			APPLICATION NO.				٥.	DATE						
WO	2000	0321	 77	A2 200006			0608		WO 1999-US28082 19991124								
	W:	ΑE,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CR,	CU,
		CZ,	DE,	DK,	DM,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	ID,	IL,
		IN,	IS,	JP,	ΚE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,
		MD,	MG,	MK,	MN,	MW,	MX,	NO,	ΝZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,
		SK,	SL,	TJ,	TM,	TR,	TT,	TZ,	UA,	UG,	UΖ,	VN,	YU,	ZA,	ZW,	AM,	AZ,
		BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM									
	RW:	GH,	GM,	KE,	LS,	MW,	SD,	SL,	SZ,	ΤZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,	DE,
		DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	ΙT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,
		CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG				
PRIORITY	ORITY APPLN. INFO.:					US 1998-109924 19981124											
							ŲS 1999-124087 19990311										
						U:	S 19	99-1	2605	6	1999	0323					

OTHER SOURCE(S): MARPAT 133:22443

The invention provides the use of 17-ketosteroids, as well as derivs., AB metabolites and precursors of such compds., and their pharmaceutically acceptable salts, in the treatment of prevention of hepatitis C type virus and/or hepatitis G type virus in patients in need of such treatment. addn., the invention provides methods to treat or prevent togavirus infections, including infections by 1 or more alphaviruses, flaviviruses, such as yellow fever virus, hepatitis C virus and hepatitis G virus, rubella viruses, or pestiviruses, such as bovine virus diarrhea virus. In addn., the invention provides combination therapies including administration of one or more compd. of the present invention, as defined herein, and administration of one or more compd. selected from plasma concn.-enhancing compds., macrophage stimulating factor, oxidn. agents, ribavirin and alpha-interferon, and/or oxygen ventilation. The compds. of the present invention may also be used to ameliorate or reduce 1 or more symptoms assocd. with a togavirus infection. Two lots of a non-aq. formulation was made at a 16a-bromoepiandrosterone concn. of 50 mg/mL in 25% polyethylene glycol 300, 12.5% dehydrated EtOH, 5% benzyl benzoate, and 57.5% propylene glycol.

IT 36791-04-5, Ribavirin

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (ketosteroids and metabolites and precursors in the treatment of hepatitis C virus and togaviruses)

L11 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2000 ACS ACCESSION NUMBER: 1999:795668 HCAPLUS

DOCUMENT NUMBER:

132:30856

TITLE:

Use of PEG-IFN-alpha and

ribavirin for the treatment of chronic

hepatitis

INVENTOR(S):

Zahm, Friederike

```
PATENT ASSIGNEE(S):
                         F. Hoffmann-La Roche A.-G., Switz.
                         PCT Int. Appl., 15 pp.
SOURCE:
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
                         English
LANGUAGE:
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
                    KIND DATE APPLICATION NO. DATE
     PATENT NO.
                 KIND DATE
     _____
    WO 9964016 A1 19991216 WO 1999-EP3746 19990529
         W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
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                                         AU 1999-45033
     AU 9945033 A1 19991230
                                                            19990529
PRIORITY APPLN. INFO.:
                                          EP 1998-110433 19980608
                                          WO 1999-EP3746 19990529
     The present invention provides the use of PEG-IFN-.
AB
     alpha. conjugates in assocn. with Ribavirin for the
    manuf. of medicaments for the treatment of chronic hepatitis C infections.
     The present invention also provides a method for treating chronic
     hepatitis C infections in patients in need of such treating comprising
     administering an amt. of PEG-IFN-.alpha.
     conjugate in assocn. with an amt. of ribavirin effective to
     treat hepatitis C.
IT
    25322-68-3D, Polyethyleneglycol, conjugates with
     interferon-.alpha. 36791-04-5
     98530-12-2, Intron A 252269-50-4
     RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (treatment of chronic hepatitis C infections with PEG-
      interferon-.alpha. conjugates and ribavirin
        combination)
REFERENCE COUNT:
                         (1) Enzon Inc; WO 9513090 A 1995
REFERENCE(S):
                         (2) Hoffmann LA Roche; EP 0510356 A 1992
                         (3) Hoffmann LA Roche; EP 0593868 A 1994
                         (4) Schering Corp; EP 0707855 A 1996
                         (5) Schering Corp; WO 9716204 A 1997
                         ALL CITATIONS AVAILABLE IN THE RE FORMAT
L11 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER:
                    1999:736231 HCAPLUS
DOCUMENT NUMBER:
                        131:317758
TITLE:
                         Combination therapy comprising ribavirin and
                        interferon-.alpha. in antiviral treatment-naive
                        patients having chronic hepatitis C infection
INVENTOR(S):
                        Albrecht, Janice K.
PATENT ASSIGNEE(S):
                      Schering Corporation, USA
                         Eur. Pat. Appl., 26 pp.
SOURCE:
                         CODEN: EPXXDW
DOCUMENT TYPE:
                         Patent
                         English
LANGUAGE:
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
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                     A1 19991117 EP 1999-303729 19990513
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IE, SI, LT, LV, FI, RO
                       A1 19991125
     WO 9959621
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                       Al 19991206
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                                                                19990513
PRIORITY APPLN. INFO.:
                                              US 1998-79566
                                                                19980515
                                              WO 1999-US7037
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     Use of ribavirin and interferon-.alpha. to prep. pharmaceutical
AB
     compns. for a treating antiviral treatment-naive patient having chronic
     hepatitis C infection to eradicate detectable HCV RNA involving a
     combination therapy using a therapeutically effective amt. of
     ribavirin and a therapeutically effective amt. of
     interferon-.alpha. for a period of from 20 up to 50 wk is disclosed.
ΙT
     25322-68-3D, PEG, conjugates with interferon-
     .alpha.2a or interferon-.alpha.2b
     36791-04-5, Ribavirin
     RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (ribavirin and interferon-.alpha.
        combination therapy for antiviral treatment-naive patients having
        chronic hepatitis C infection)
REFERENCE COUNT:
                           (1) Bizollon, T; HEPATOLOGY 1997, V26(2), P500 HCAPLUS
REFERENCE(S):
                           (2) Braconier, J; SCANDINAVIAN JOURNAL OF INFECTIOUS
                               DISEASES 1995, V27(4), P325 MEDLINE
                           (3) Chemello, L; JOURNAL OF HEPATOLOGY 1994, V21(Suppl
                               01), PS12
                           (4) McHutchison, J; NEW ENGLAND JOURNAL OF MEDICINE
                               1998, V339(21), P1485 HCAPLUS
                           (7) Reichard, O; THE LANCET 1998, V351(9096), P83
                           ALL CITATIONS AVAILABLE IN THE RE FORMAT
L11 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER:
                           1999:213143 HCAPLUS
DOCUMENT NUMBER:
                           130:218266
                           Combination therapy with interferon-.alpha. and
TITLE:
                        ribavirin for eradicating detectable HCV-RNA
                           in patients having chronic hepatitis C infection
INVENTOR(S):
                           Albrecht, Janice K.
                           Schering Corporation, USA
PATENT ASSIGNEE(S):
SOURCE:
                           Eur. Pat. Appl., 19 pp.
                          CODEN: EPXXDW
DOCUMENT TYPE:
                           Patent
                           English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
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PATENT INFORMATION:
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     PATENT NO.
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PRIORITY, APPLN. INFO.:
                                           US 1997-938033
                                                            19970921
                                           US 1997-935123
                                                            19970922
                                           WO 1998-US18488 19980916
AB
     The use of ribavirin, interferon-.alpha. or a combination of
     ribavirin and interferon-.alpha. is disclosed for the manuf. of a
     pharmaceutical compn. for treating a patient having chronic hepatitis C
     infection to eradicate detectable HCV-RNA by a method comprising
     administering an effective amt. of ribavirin in assocn. with an
     effective amt. of interferon-.alpha., wherein the patient is one having
     failed to respond to a previous course of interferon-.alpha. therapy.
     compns. may be used in a method for treating a patient having chronic
     hepatitis C infection to eradicate detectable HCV-RNA involving a
     combination therapy using a therapeutically effective amt. of
     ribavirin and a therapeutically effective amt. of
     interferon-.alpha. for a time period of from 20 up to 80 wk.
     25322-68-3D, PEG, interferon-.alpha.
ΙT
     conjugates 36791-04-5, Ribavirin
     RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (interferon-.alpha.-ribavirin combination
        therapy for eradicating detectable HCV-RNA in patients with chronic
        hepatitis C infection)
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E1 THROUGH E5 ASSIGNED
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                          22 NOV 2000 HIGHEST RN 304429-00-3
DICTIONARY FILE UPDATES: 23 NOV 2000 HIGHEST RN 304429-00-3
TSCA INFORMATION NOW CURRENT THROUGH July 8, 2000
  Please note that search-term pricing does apply when
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Structure search limits have been increased. See HELP SLIMIT
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=> s e1-e5
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(36791-04-5/RN)

(25322-68-3/RN)

(98530-12-2/RN)

1 25322-68-3/BI

1 98530-12-2/BI

1 252269-50-4/BI

(252269-50-4/RN) 1 77907-69-8/BI (77907-69-8/RN) L12 5 (36791-04-5/BI OR 25322-68-3/BI OR 98530-12-2/BI OR 252269-50-4/ BI OR 77907-69-8/BI) => => => d ide can 112 1-5 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2000 ACS L12 RN 252269-50-4 REGISTRY CN Interferon .alpha.2 (human leukocyte clone pM21 protein moiety reduced), mixt. with 1-.beta.-D-ribofuranosyl-1H-1,2,4-triazole-3-carboxamide (9CI) (CA INDEX NAME) OTHER CA INDEX NAMES: CN 1H-1,2,4-Triazole-3-carboxamide, 1-.beta.-D-ribofuranosyl-, mixt. contq. (9CI) FS STEREOSEARCH MF C8 H12 N4 O5 . Unspecified CI MXS SR CA LC STN Files: CA, CAPLUS, TOXLIT CM1 CRN 98530-12-2 CMF Unspecified CCI MAN *** STRUCTURE DIAGRAM IS NOT AVAILABLE *** CM 2 CRN 36791-04-5 C8 H12 N4 O5 CMF Absolute stereochemistry. NH₂ R Ö HO OH

1 REFERENCES IN FILE CA (1967 TO DATE) 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:30856

L12 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2000 ACS RN 98530-12-2 REGISTRY Interferon .alpha.2 (human leukocyte clone pM21 protein moiety reduced) CN (9CI) (CA INDEX NAME) OTHER NAMES: .alpha.AD-Interferon (human clone 36422.pep) 11: PN: WO0009143 SEQID: 24 claimed protein CN 7: PN: WO0006735 FIGURE: 5 claimed protein CN CN Interferon .alpha.2b (human leukocyte clone Hif-SN206 protein moiety reduced)

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CN
     Interferon .alpha.2b (human)
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Absolute stereochemistry.

Other Sources:

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       RTECS*, SPECINFO, TOXLINE, TOXLIT, TULSA, ULIDAT, USAN, USPATFULL, VETU,
          (*File contains numerically searchable property data)
     Other Sources: DSL**, TSCA**, WHO
          (**Enter CHEMLIST File for up-to-date regulatory information)
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55028 REFERENCES IN FILE CA (1967 TO DATE) 14933 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA 55123 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:328447 REFERENCE 2: 133:328307 REFERENCE 3: 133:327703 REFERENCE 4: 133:327593 REFERENCE 5: 133:326968 REFERENCE 6: 133:326112 REFERENCE 7: 133:325952 REFERENCE 133:325706 8: REFERENCE 9: 133:325684 REFERENCE 10: 133:325682

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L4	9	EA FILE=REGISTRY ABB=ON PLU=ON IFN.ALPHA./BI	
L5	262	EA FILE=REGISTRY ABB=ON PLU=ON L4 OR INTERFERON .ALPHA.?/C	N
L6	18	EA FILE=REGISTRY ABB=ON PLU=ON RIBAVIRIN?	
L7	358819	EA FILE=HCAPLUS ABB=ON PLU=ON L2 OR L3 OR PEG? OR (POLY(W))	\mathtt{ET}
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L8	16615	EA FILE=HCAPLUS ABB=ON PLU=ON L5 OR (IFN OR INTERFERON) (5A) A
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L9	1328	EA FILE=HCAPLUS ABB=ON PLU=ON L6 OR RIBAVIRIN?	
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L13 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2000 ACS ACCESSION NUMBER: 2000:493265 HCAPLUS

DOCUMENT NUMBER: 133:99539

TITLE: Antiviral agent-vaccine combination for treatment of

hepatitis B virus infection

INVENTOR(S): Atkinson, Gillian Frances; Boon, Ronald James;

Vandepapeliere, Pierre G.; Wettendorff, Martine Anne

Cecile

PATENT ASSIGNEE(S): SmithKline Beecham Biologicals S.A., Belg.

SOURCE:

PCT Int. Appl., 19 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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APPLICATION NO. DATE
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     WO 2000041463 A2 20000720
                                             WO 1999-EP10295 19991221
          W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
               CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
               SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ,
               BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:
                                                    GB 1999-630
                                                                        19990112
     The invention provides a pharmaceutical pack comprising as active
      ingredients (1) an antiviral agent active against hepatitis B virus and
      (2) a vaccine for the prophylaxis and/or treatment of hepatitis B
      infection, the active ingredients being for simultaneous or sequential
     use. Preferred components are a nucleoside analog as the antiviral agent,
      together with a hepatitis B virus vaccine which comprises a hepatitis B
```

IT 36791-04-5, Ribavirin

virus surface antigen.

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (antiviral agent-vaccine combination for treatment of hepatitis B virus infection)

IT 9005-65-6, Tween 80

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (antiviral agent-vaccine combination for treatment of hepatitis B virus infection)

L13 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2000 ACS ACCESSION NUMBER: 2000:260065 HCAPLUS

DOCUMENT NUMBER:

132:288757

TITLE:

Selective eradication of virally infected cells by combined use of a cytotoxic agent and an antiviral

agent

INVENTOR(S):

Korant, Bruce D.

PATENT ASSIGNEE(S):

Du Pont Pharmaceuticals Company, USA

SOURCE:

PCT Int. Appl., 31 pp.

CODEN: PIXXD2
Patent

DOCUMENT TYPE:

racenc

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATI	E	APPLICATION NO.	DATE
WO 2000021565	A1 200	00420	WO 1999-US23192	19991005
W: AL, AU	, BR, CA, CN	, CZ, EE,	HU, IL, IN, JP, KR	, LT, LV, MK, MX,
			SK, TR, UA, VN, ZA	
RW: AT, BE	, CH, CY, DE	, DK, ES,	FI, FR, GB, GR, IE,	, IT, LU, MC, NL,
PT, SE				
AU 9965088	A1 2000	00501	AU 1999-65088	19991005
PRIORITY APPLN. INF	o.:		US 1998-103922	19981013
			WO 1999-US23192	19991005

AB A method for treating human immunodeficiency virus (HIV) infection in a mammal comprises administering to the mammal a therapeutically effective

ΙT

AB

IT

DOCUMENT TYPE:

```
amt. of a combination of: (i) at least one cytotoxic agent and (ii) at
    least one nonnucleoside reverse transcriptase HIV inhibitor. Also
    provided is a method of treating chronic viral infections comprising
    administering to the mammal a therapeutically effective amt. of a
    combination of: (i) at least one cytotoxic agent and (ii) at least one
     antiviral agent.
    36791-04-5D, Virazole, mixt. with Interferon
     .alpha. 130167-69-0, Pegaspargase
    RL: BAC (Biological activity or effector, except adverse); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (cytotoxic agent-antiviral agent combination for selective eradication
        of virally infected cells)
REFERENCE COUNT:
                         (1) Merck & Co; EP 0617968 A 1994
REFERENCE(S):
L13 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER:
                        1998:766507 HCAPLUS
                        130:29221
DOCUMENT NUMBER:
                        Preparation of solid porous matrixes for
TITLE:
                        pharmaceutical uses
                        Unger, Evan C.
INVENTOR(S):
                       Imarx Pharmaceutical Corp., USA
PATENT ASSIGNEE(S):
                        PCT Int. Appl., 139 pp.
SOURCE:
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:
                                         APPLICATION NO. DATE
     PATENT NO.
                 KIND DATE
                           -----
     WO 9851282 A1
                                          WO 1998-US9570 19980512
                           19981119
         W: AU, BR, CA, CN, JP, KR, NZ
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
                           19981208
                                          AU 1998-73787
                                                           19980512
     AU 9873787
                      Α1
                     A1
                           20000308
                                          EP 1998-921109 19980512
     EP 983060
         R: DE, FR, GB, IT, NL
PRIORITY APPLN. INFO.:
                                          US 1997-46379
                                                          19970513
                                           US 1998-75477
                                                           19980511
                                          WO 1998-US9570 19980512
     A solid porous matrix formed from a surfactant, a solvent, and a bioactive
     agent is described. Thus, amphotericin nanoparticles were prepd. by using
     ZrO2 beads and a surfactant. The mixt. was milled for 24 h.
     9003-11-6 9005-64-5, Polyoxyethylene sorbitan
     monolaurate 9005-65-6, Polyoxyethylene sorbitan monooleate
     9005-66-7, Polyoxyethylene sorbitan monopalmitate
     9005-67-8, Polyoxyethylene sorbitan monostearate 9005-71-4
     , Polyoxyethylene sorbitan tristearate 9036-19-5, Octoxynol
     25322-68-3 25322-68-3D, PEG, ethers
     36791-04-5, Ribavirin
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (prepn. of solid porous matrixes for pharmaceutical uses)
REFERENCE COUNT:
                         1
                         (1) Wong; US 5569448 A 1996
REFERENCE(S):
L13 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2000 ACS
                         1993:154600 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         118:154600
                        Antiviral pharmaceutical compositions for vaginal
TITLE:
                         administration
                        Conte, Ubaldo; Maggi, Lauretta
INVENTOR(S):
                       L.C. Pharchem Ltd., Cyprus
PATENT ASSIGNEE(S):
                        PCT Int. Appl., 19 pp.
SOURCE:
                        CODEN: PIXXD2
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Patent

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English
LANGUAGE:
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
    PATENT NO.
                 KIND DATE
                                        APPLICATION NO. DATE
                          _____
                           19930218 WO 1992-EP1655 19920720
    WO 9302662 A1
        W: AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO,
            PL, RO, RU, SD, US
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE, BF, BJ,
            CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG
                           19930218
                                        CA 1992-2114216 19920720
    CA 2114216
                     AA
    AU 9223454
                                         AU 1992-23454
                      Α1
                           19930302
                                                          19920720
    EP 596935
                           19940518
                                        EP 1992-915980 19920720
                      Α1
    EP 596935
                     В1
                           19951018
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE
    JP 06509348 T2
                                        JP 1992-503217 19920720
                           19941020
    AT 129149
                      E
                                         AT 1992-915980
                                                         19920720
                           19951115
    CN 1082894
                                                        19920824
                     Α
                           19940302
                                         CN 1992-111077
                                         IT 1991-MI2071
PRIORITY APPLN. INFO.:
                                                         19910726
                                                         19920720
                                         WO 1992-EP1655
AB
    The title compns. in the form of sustained-release tablets comprise
    virucides and biocompatible bioadhesive polymers. For example, a tablet
    contained acyclovir 200, hydroxypropyl Me cellulose 200, mannitol 400,
    maize starch 400, adipic acid 70, talc 20, and Mg stearate 10 mg.
IT
    36791-04-5
    RL: BIOL (Biological study)
        (sustained-release compns. contg., for vaginal administration)
ΙT
    25322-68-3, Polyethylene glycol
    RL: BIOL (Biological study)
        (virucidal sustained-release compns. contg., for vaginal
       administration)
=> select hit rn 113 1-4
E6 THROUGH E15 ASSIGNED
=>
=>
=> fil reg
FILE 'REGISTRY' ENTERED AT 21:00:54 ON 24 NOV 2000
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2000 American Chemical Society (ACS)
STRUCTURE FILE UPDATES:
                         22 NOV 2000 HIGHEST RN 304429-00-3
DICTIONARY FILE UPDATES: 23 NOV 2000 HIGHEST RN 304429-00-3
TSCA INFORMATION NOW CURRENT THROUGH July 8, 2000
  Please note that search-term pricing does apply when
 conducting SmartSELECT searches.
Structure search limits have been increased. See HELP SLIMIT
for details.
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=> s e6-e15 not 112

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1 36791-04-5/BI
                  (36791-04-5/RN)
             1 25322-68-3/BI
                  (25322-68-3/RN)
             1 9005-65-6/BI
                  (9005-65-6/RN)
             1 130167-69-0/BI
                  (130167-69-0/RN)
             1 9003-11-6/BI
                  (9003-11-6/RN)
             1 9005-64-5/BI
                  (9005-64-5/RN)
             1 9005-66-7/BI
                  (9005-66-7/RN)
             1 9005-67-8/BI
                  (9005-67-8/RN)
             1 9005-71-4/BI
                  (9005-71-4/RN)
             1 9036-19-5/BI
                  (9036-19-5/RN)
             8 (36791-04-5/BI OR 25322-68-3/BI OR 9005-65-6/BI OR 130167-69-0/B
L14
               I OR 9003-11-6/BI OR 9005-64-5/BI OR 9005-66-7/BI OR 9005-67-8/B
               I OR 9005-71-4/BI OR 9036-19-5/BI) NOT L12
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=> d ide can 114 1-8
    ANSWER 1 OF 8 REGISTRY COPYRIGHT 2000 ACS
L14
     130167-69-0 REGISTRY
RN
CN
     Pegaspargase (9CI) (CA INDEX NAME)
MF
     Unspecified
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     MAN
SR
     US Adopted Names Council
                  ADISINSIGHT, BIOBUSINESS, BIOSIS, CA, CAPLUS, CIN, DRUGNL,
LC
     STN Files:
       DRUGPAT, DRUGUPDATES, IPA, MRCK*, PROMT, TOXLINE, TOXLIT, USAN
         (*File contains numerically searchable property data)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
               5 REFERENCES IN FILE CA (1967 TO DATE)
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            1: 132:288757
            2: 130:119591
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REFERENCE
            3: 129:169941
REFERENCE
            4:
                129:156545
REFERENCE
            5: 127:12853
L14
    ANSWER 2 OF 8 REGISTRY COPYRIGHT 2000 ACS
RN
     9036-19-5 REGISTRY
     Poly(oxy-1, 2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-
CN
     .omega.-hydroxy- (9CI)
                             (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Glycols, polyethylene, mono[(1,1,3,3-tetramethylbutyl)phenyl] ether (8CI)
OTHER NAMES:
     Alkasurf OP
CN
     Alkasurf OP 10
CN
     Alkasurf OP 12
CN
CN
     Alkasurf OP 30
CN
     Alkasurf OP 40
CN
     Alkasurf OP 5
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Alkasurf OP 8
CN
     Antarox CA 420
CN
     Antarox CA 520
CN
CN
     Antarox CA 620
CN
     Antarox CA 897
     Cemulsol OP 16
CN
     Cemulsol P 9
CN
CN
     Charger E
CN
     Delonic OPE 10
CN
     Disponil A 4065EXP
     Emulgen 808
CN
     Emulgen 810
CN
CN
     Emulgen 810S
CN
     Emulgen 840S
CN
     Emulsifier OP
CN
     EP 680
CN
     Ethoxylated octylphenol
     Ethylan CP
CN
CN
     Ethylan CPX
     HS 2045
CN
     HS 208
.CN
     HS 215
CN
CN
     Hydrol
     Hydrol (surfactant)
CN
     Hyonic OP 9
CN
     Hyonic PE 260
CN
     Igepal CA
CN
     Igepal CA 210
CN
     Igepal CA 300
CN
     IGEPAL CA 360
CN
     Igepal CA 420
CN
     Igepal CA 520
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     Igepal CA 620
     Igepal CA 630
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     Igepal CA 720
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     Igepal CA 890
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     Igepal CA 897
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     Macol OP 10SP
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     Macol OP 5
CN
     Marlophen 84
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
     12679-74-2, 9081-83-8, 11130-43-1, 1336-60-3, 53663-54-0, 53858-66-5,
DR
     58056-95-4, 59112-84-4, 54834-97-8, 55600-46-9, 120026-27-9, 63172-50-9,
     50815-48-0, 141443-66-5, 73904-96-8, 71538-51-7, 77137-66-7, 39283-49-3,
     39316-46-6, 39320-65-5, 39341-03-2, 52628-05-4, 188612-22-8
     (C2 H4 O)n C14 H22 O
MF
CI
     IDS, PMS, COM
PCT
     Polyether
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     STN Files:
       CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU,
       DETHERM*, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE,
       MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS*, TOXLINE, TOXLIT, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources: DSL**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
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$$HO \longrightarrow CH_2 - CH_2 - O \longrightarrow D1$$

$$\begin{array}{c} \text{D1} \\ \mid \\ \text{Me-C-CH}_2\text{-CMe}_3 \\ \mid \\ \text{Me} \end{array}$$

2939 REFERENCES IN FILE CA (1967 TO DATE)
61 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

2943 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:325388

REFERENCE 2: 133:323298

REFERENCE 3: 133:322393

REFERENCE 4: 133:310933

REFERENCE 5: 133:310871

REFERENCE 6: 133:286400

REFERENCE 7: 133:280644

REFERENCE 8: 133:280549

REFERENCE 9: 133:278221

REFERENCE 10: 133:270289

L14 ANSWER 3 OF 8 REGISTRY COPYRIGHT 2000 ACS

RN **9005-71-4** REGISTRY

OTHER CA INDEX NAMES:

CN Sorbitan, tristearate, polyoxyethylene derivs. (8CI)

OTHER NAMES:

CN Ahco 7166T

CN Emsorb 6907

CN Ethoxylated sorbitan tristearate

CN Glycosperse TS 20

CN Liposorb TS 20

CN Montanox 65

CN Nikkol TS 30

CN Poly(oxyethylene) sorbitan tristearate

CN Polyethylene glycol sorbitan ether tristearate

CN Polyethylene glycol sorbitan tristearate

CN Polyethylene glycol sorbitan tristearate ether

CN Polyoxyethylene 20 sorbitan tristearate

CN Polysorbate 65

CN Rheodol TW-S 320

CN Sorbimacrogol tristearate 300

CN T-MAZ 65K

٠,

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Tween 65
CN
     9015-61-6
DR
     Unspecified
MF
CI
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PCT
     Manual registration
LC
     STN Files: ANABSTR, BIOBUSINESS, BIOSIS, CA, CAPLUS, CHEMCATS, CHEMLIST,
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       TOXLINE, TOXLIT, USAN, USPATFULL
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     Other Sources: DSL**, TSCA**
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            4: 133:168183
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            6: 133:155314
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           7: 133:154974
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           8: 133:139506
          9: 133:60459
REFERENCE
REFERENCE 10: 133:48691
L14 ANSWER 4 OF 8 REGISTRY COPYRIGHT 2000 ACS
     9005-67-8 REGISTRY
RN
CN
     Sorbitan, monooctadecanoate, poly(oxy-1,2-ethanediyl) derivs. (9CI) (CA
     INDEX NAME)
OTHER NAMES:
CN
    Ahco DFS 100
CN
    Ahco DFS 149
CN
    Armotan PMS 20
CN
    Atlas G 1036
    Crill 8
CN
CN
    Crill 9
CN
    Crill S 8
CN
    Crillet 3
CN
    Crillet 31
CN
     Disponil SMS 120F1
CN
     Drewpone 60
CN
     Durfax 60K
CN
     Emasol 3130
CN
     Emerest 2654
CN
     Emsorb 6905
CN
     Emsorb 6906
CN
     Emulgin SMS 20
CN
     Ethoxylated sorbitan monostearate
CN
     Eumulgin SMS 20
CN
     Glycosperse S 20
CN
    Montanox 60
CN
    Montanox 60DF
CN
    MS 55F
CN
    Newcol 65
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Nikkol TS 10
CN
    Nikkol TS 106
CN
    Nissan Nonion ST 202
CN
CN
    Nissan Nonion ST 221
CN
    Nissan Nonion STN 201.5
CN
    Nonio-light TWS 13
    Nonion ST 221
CN
CN
     Polisorbac 80
CN
     Poly(oxyethylene) sorbitol monostearate
CN
     Poly(oxyethylene)sorbitan monostearate
CN
     Polyethylene glycol sorbitan monostearate
CN
     Polyethylene glycol sorbitan monostearate ether
CN
     Polyethylene sorbitan monostearate
CN
     Polyoxyethylene sorbitan monooctadecanoate
CN
     Polyoxyethylene sorbitan monostearic acid ester
CN
     Polyoxyethylene sorbitan stearate
CN
     Polysorbate 60
CN
     Polysorbate 61
CN
     Rheodol Super TW-S 120
CN
     Rheodol TW-S 106
     Rheodol TW-S 120
CN
CN
     Rokwinol 60
CN
     Silvan T 60
CN
     Sorbimacrogol stearate 300
CN
     Sorbital S 20
     Sorbitan monostearate polyethylene glycol ether
CN
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
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MF
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CI
     PMS, COM, MAN
PCT
    Manual registration, Polyether
     STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,
LC
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       EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MSDS-OHS, NIOSHTIC, PIRA, PROMT,
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              15 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            2258 REFERENCES IN FILE CAPLUS (1967 TO DATE)
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            2:
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            8:
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            9:
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REFERENCE
REFERENCE 10: 133:256796
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ANSWER 5 OF 8 REGISTRY COPYRIGHT 2000 ACS
T.14
RN
     9005-66-7 REGISTRY
     Sorbitan, monohexadecanoate, poly(oxy-1,2-ethanediyl) derivs. (9CI)
CN
     INDEX NAME)
OTHER CA INDEX NAMES:
     Sorbitan, monopalmitate, polyoxyethylene derivs. (8CI)
OTHER NAMES:
CN
     Crill 7
     Crillet 2
CN
CN
     Durfax 60
CN
     Emsorb 6910
CN
     Emulgen TWP 120
CN
     Ethoxylated sorbitan monopalmitate
CN
     Glycosperse P 20
CN
     Lonzest SMP 20
CN
     Montanox 40
     MP 55F
CN
     Nikkol TP 10
CN
     Nissan Nonion PT 221
CN
CN
     Polyethylene glycol sorbitan monohexadecanoate
CN
     Polyethylene glycol sorbitan monopalmitate
CN
     Polyethylene glycol-sorbitan monopalmitate adduct
CN
     Polyethylene sorbitan monopalmitate
     Polyoxyethylene sorbitan monohexadecanoate
CN
CN
     Polyoxyethylene sorbitan monopalmitate
CN
     Polysorbate 40
     Rheodol TW-P 120
CN
     Sorbimacrogol palmitate 300
CN
     Sorbitan monopalmitate polyethylene glycol ether
CN
     Sorbitan polyethoxy monopalmitate
CN
CN
     Sorbon T 40
CN
     Tween 16:0
CN
     Tween 40
     9015-58-1, 1340-84-7, 118955-40-1
DR
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CI
     PMS, COM, MAN
PCT
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LC
     STN Files:
       CAPLUS, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, EMBASE, HSDB*, IFICDB,
       IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, NIOSHTIC, PROMT, RTECS*,
       TOXLINE, TOXLIT, USAN, USPATFULL
         (*File contains numerically searchable property data)
                      DSL**, TSCA**
     Other Sources:
         (**Enter CHEMLIST File for up-to-date regulatory information)
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            6:
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            7:
                133:270491
REFERENCE
            8:
                133:257493
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REFERENCE
            9: 133:213178
REFERENCE 10: 133:213151
     ANSWER 6 OF 8 REGISTRY COPYRIGHT 2000 ACS
RN
     9005-65-6 REGISTRY
CN
     Sorbitan, mono-(9Z)-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs.
           (CA INDEX NAME)
     (9CI)
OTHER CA INDEX NAMES:
CN
     Glycols, polyethylene, ether with sorbitan monooleate (8CI)
OTHER NAMES:
CN
     Alkamuls PSMO 20
CN
     Atlox 1087
CN
     Atlox 8916TF
CN
     Capmul POE-O
CN
     Cemerol T 80
     Cemesol TW 1020
CN
CN
     Crill 10
CN
     Crill 11
CN
     Crill S 10
CN
     Crillet 4
CN
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CN
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L14 ANSWER 8 OF 8 REGISTRY COPYRIGHT 2000 ACS
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CM 2

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              OR ANTAROX? OR CEMULSOL? OR CHARGE(W)E OR DELONIC? OR DISPON-
             IL? OR EMULGEN? OR ETHYLAN? OR HS(W)(2045 OR 208 OR 215))
                S1 OR HYDROL? OR HYONIC? OR IGEPAL? OR INVADIN? OR MACOL? -
S2
             OR MARLOPHEN?
s3
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S4
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DIALOG(R)File
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(c) 2000 BIOSIS. All rts. reserv.
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12757225
Prognostic factors and early predictability of sustained viral response
  (SVR) in patients treated with *pegylated* (40kDa) *interferon* *alfa*-2a
  (*PegasysTM*): A new profile.
AUTHOR: Lee Samuel S(a); Heathcote E J; Reddy K Rajender; Zeuzem Stefan;
  Fried Michael W; Wright Teresa L; Pockros Paul J; Haeussinger D; Smith
  Coleman; Pawlotsky Jean-Michel; Lin Amy; Pappas Stephen C
AUTHOR ADDRESS: (a) Univ of Calgary, Calgary, AB**Canada
JOURNAL: Hepatology 32 (4 Pt. 2):p370A October, 2000
MEDIUM: print
CONFERENCE/MEETING: 51st Annual Meeting and Postgraduate Courses of the
American Association for the Study of Liver Diseases Dallas, Texas, USA
October 27-31, 2000
SPONSOR: American Association for the Study of Liver Diseases
ISSN: 0270-9139
RECORD TYPE: Citation
LANGUAGE: English
SUMMARY LANGUAGE: English
 6/AB/2
            (Item 2 from file: 5)
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DIALOG(R) File

5:Biosis Previews(R)

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413

BIOSIS NO.: 200000510820 Improved work productivity, safety, and quality of life with *pegylated* (40kDa) *interferon* *alfa*-2a (*PEGASYSTM*) therapy in the treatment of chronic hepatitis C. AUTHOR: Perrillo Robert P(a); Thuluvath Paul J; Rothstein Ken; Alam Imatiaz ; Palmer Melissa; Gordon Stuart; Pappas Stephen C AUTHOR ADDRESS: (a) Ochsner Clin, New Orleans, LA**USA JOURNAL: Hepatology 32 (4 Pt. 2):p362A October, 2000 MEDIUM: print CONFERENCE/MEETING: 51st Annual Meeting and Postgraduate Courses of the American Association for the Study of Liver Diseases Dallas, Texas, USA October 27-31, 2000 SPONSOR: American Association for the Study of Liver Diseases ISSN: 0270-9139 RECORD TYPE: Citation LANGUAGE: English SUMMARY LANGUAGE: English (Item 3 from file: 5) 6/AB/3 DIALOG(R) File 5: Biosis Previews(R) (c) 2000 BIOSIS. All rts. reserv. 12757190 BIOSIS NO.: 200000510813 High and low doses of *PEG*-*interferon* *alfa* 2b plus *Ribavirin* in "naive" patients with chronic hepatitis C genotype 1: Effects on early viral kinetics. AUTHOR: Sanchez-Avila Juan F(a); Buti Maria(a); Martel Maria(a); Stalgis Carlos; Lafleur F; Cotrina Montserrat; Morral Sergio; Esteban Rafael; AUTHOR ADDRESS: (a) Hosp Vall d'Hebron, Barcelona**Spain JOURNAL: Hepatology 32 (4 Pt. 2):p359A October, 2000 MEDIUM: print CONFERENCE/MEETING: 51st Annual Meeting and Postgraduate Courses of the American Association for the Study of Liver Diseases Dallas, Texas, USA October 27-31, 2000 SPONSOR: American Association for the Study of Liver Diseases ISSN: 0270-9139 RECORD TYPE: Citation LANGUAGE: English SUMMARY LANGUAGE: English 6/AB/4 (Item 4 from file: 5) DIALOG(R) File 5: Biosis Previews(R) (c) 2000 BIOSIS. All rts. reserv. BIOSIS NO.: 200000510795 12757172 *Pegylated* (40kDa) *interferon* *alfa*-2a (*PegasysTM*) is superior to *interferon* *alfa*-2a (*Roferon*-A(R)) in improving posttreatment histologic outcome in chronic hepatitis C patients 1584. AUTHOR: Heathcote E J(a); Balart Luis A; Shiffman Mitchell L; Pockros Paul J; Lee Samuel S; Reddy K Rajender; Minuk Y Gerald; Bain Vince; Sherman Morris; Wright Teresa L; Reindollar Robert W; Brunda Michael J AUTHOR ADDRESS: (a) Univ of Toronto, Toronto, ON**Canada JOURNAL: Hepatology 32 (4 Pt. 2):p223A October, 2000 MEDIUM: print CONFERENCE/MEETING: 51st Annual Meeting and Postgraduate Courses of the American Association for the Study of Liver Diseases Dallas, Texas, USA October 27-31, 2000

SPONSOR: American Association for the Study of Liver Diseases ISSN: 0270-9139 RECORD TYPE: Citation LANGUAGE: English SUMMARY LANGUAGE: English (Item 5 from file: 5) 6/AB/5 DIALOG(R) File 5: Biosis Previews(R) (c) 2000 BIOSIS. All rts. reserv. BIOSIS NO.: 200000507564 *Peginterferon* *alfa*-2b plus *ribavirin* compared to *interferon* *alfa* -2b plus *ribavirin* for the treatment of chronic hepatitis C: 24 Week treatment analysis of a multicenter, multinational phase III randomized controlled trial. AUTHOR: Manns M P(a); McHutchison J G; Gordon S; Rustqi V; Shiffman M L; Lee W M; Ling M L; Cort Susannah; Albrecht Janice K AUTHOR ADDRESS: (a) Medical Sch of Hannover, Hannover**Germany JOURNAL: Hepatology 32 (4 Pt. 2):p297A October, 2000 MEDIUM: print CONFERENCE/MEETING: 51st Annual Meeting and Postgraduate Courses of the American Association for the Study of Liver Diseases Dallas, Texas, USA October 27-31, 2000 SPONSOR: American Association for the Study of Liver Diseases ISSN: 0270-9139 RECORD TYPE: Citation LANGUAGE: English SUMMARY LANGUAGE: English 6/AB/6 (Item 6 from file: 5) DIALOG(R) File 5: Biosis Previews(R) (c) 2000 BIOSIS. All rts. reserv. BIOSIS NO.: 200000495437 Estimating the cost-effectiveness of *ribavirin* and *pegylated* *interferon* *alfa*-2b for chronic hepatitis C. AUTHOR: Wong John B(a) AUTHOR ADDRESS: (a) Tufts-New England Medical Ctr, Boston, MA**USA JOURNAL: Hepatology 32 (4 Pt. 2):p425A October, 2000 MEDIUM: print CONFERENCE/MEETING: 51st Annual Meeting and Postgraduate Courses of the American Association for the Study of Liver Diseases Dallas, Texas, USA October 27-31, 2000 SPONSOR: American Association for the Study of Liver Diseases ISSN: 0270-9139 RECORD TYPE: Citation LANGUAGE: English SUMMARY LANGUAGE: English (Item 7 from file: 5) 6/AB/7 DIALOG(R) File 5: Biosis Previews(R) (c) 2000 BIOSIS. All rts. reserv. 12672882 BIOSIS NO.: 200000426384 A dose-ranging study of *pegylated* *interferon* *alfa*-2b and *ribavirin* in chronic hepatitis C. AUTHOR: Glue Paul(a); Rouzier-Panis Regine; Raffanel Claude; Sabo Ron;

Gupta Samir K; Salfi Margaret; Jacobs Shiela; Clement Robert P; Hepatitis C Intervention Therapy Group

AUTHOR ADDRESS: (a) Schering-Plough Research Institute, K-15-4455, 2015

Galloping Hill Rd, Kenilworth, NJ, 07033**USA

JOURNAL: Hepatology 32 (3):p647-653 September, 2000

MEDIUM: print ISSN: 0270-9139

DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: English

SUMMARY LANGUAGE: English

ABSTRACT: The objectives of this study were to assess the safety, pharmacokinetics, and efficacy of *pegylated* *interferon* *alfa*-2b (*PEG*-Intron) plus *ribavirin* in patients with chronic hepatitis C. A total of 72 patients (35 men/37 women, age range 20-68 years) with clinically compensated chronic hepatitis C virus (HCV) were enrolled into this open-label, randomized, active controlled study. Patients received either *PEG*-Intron 0.35, 0.7, or 1.4 mug/kg subcutaneously weekly for 24 weeks alone, or in combination with *ribavirin* 600, 800, or 1,000 to 1,200 mg orally daily. Patients were evaluated during treatment and after a 24-week follow-up period for safety and efficacy. Detailed pharmacokinetic assessments were performed at weeks 1 and 4. *PEG*-Intron alone produced expected dose-related reductions in white cells, neutrophils and platelets. Addition of *ribavirin* reduced hemoglobin levels in a dose-related manner, did not further reduce *PEG* -Intron-induced decreases in neutrophil or white cell count, and increased platelet counts. Neutrophil function tests (C5a and FMLP migration, killing curves) were unaltered. Reported adverse events (flu-like symptoms, asthenia) were qualitatively similar in all dose groups. Anti-HCV activity, as measured by loss of detectable serum HCV RNA (i.e. <100 copies/mL) at the end of treatment (week 24) and after 24 weeks of follow-up (week 48) showed dose-response trends for *PEG* -Intron. At each *PEG*-Intron dose level, anti-HCV activity was higher in patients coadministered *ribavirin* than in patients treated with *PEG* -Intron monotherapy. There was no evidence of pharmacokinetic interactions with either drug. We conclude that the safety and tolerability of combined *PEG*-Intron/*ribavirin* and *PEG*-Intron alone were comparable. Combined *PEG*-Intron/*ribavirin* showed dose-related synergistic anti-HCV effects, which were numerically superior to those obtained with *PEG*-Intron monotherapy.

6/AB/8 (Item 8 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2000 BIOSIS. All rts. reserv.

12563614 BIOSIS NO.: 200000317116

Pegylated *interferon* *alfa*-2b (*PEG*-Intron) monotherapy is superior to *interferon* *alfa*-2b (Intron A) for the treatment of chronic hepatitis C.

AUTHOR: Trepo C; Lindsay K; Niederau C; Shiffman M; Gordon S; Hoefs J; Schiff E; Marcellin P; Bacon B; Fang J; Garaud J; Albrecht J

AUTHOR ADDRESS: (a) Hopital Hotel Dieu, Lyon**France

JOURNAL: Journal of Hepatology 32 (Supplement 2):p29 2000

MEDIUM: print

CONFERENCE/MEETING: 35th Annual Meeting of the European Association for the

Study of the Liver Rotterdam, Netherlands April 29-May 03, 2000

SPONSOR: European Association for the Study of the Liver

ISSN: 0168-8278

JIANG 09/317688 PAGE 5 OF 32

RECORD TYPE: Citation LANGUAGE: English

SUMMARY LANGUAGE: English

6/AB/9 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2000 BIOSIS. All rts. reserv.

12537980 BIOSIS NO.: 200000291482

Pegylated *interferon* *alfa*-2a (*PEGASYSTM*) and *ribavirin*

combination therapy for chronic hepatitis C: A phase II open-label study.

AUTHOR: Sulkowski Mark S; Reindollar Robert; Yu J

AUTHOR ADDRESS: (a) Johns Hopkins Univ Sch of Medicine, Baltimore, MD**USA JOURNAL: Gastroenterology 118 (4 Suppl. 2 Part 1):pAASLD A950 April, 2000

MEDIUM: print.

CONFERENCE/MEETING: 101st Annual Meeting of the American

Gastroenterological Association and the Digestive Disease Week. San Diego,

California, USA May 21-24, 2000

SPONSOR: American Gastroenterological Association

ISSN: 0016-5085

RECORD TYPE: Citation LANGUAGE: English

SUMMARY LANGUAGE: English

6/AB/10 (Item 10 from file: 5) DIALOG(R)File 5:Biosis Previews(R) (c) 2000 BIOSIS. All rts. reserv.

12428575 BIOSIS NO.: 200000182077

Pathogenesis, diagnosis and management of hepatitis C.

AUTHOR: Boyer Nathalie; Marcellin Patrick(a)

AUTHOR ADDRESS: (a) Service d'Hepatologie, Hopital Beaujon, 100 Bd. du

General Leclerc, 92110, Clichy**France

JOURNAL: Journal of Hepatology 32 (Suppl. 1):p98-112 2000

ISSN: 0168-8278

DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: English

SUMMARY LANGUAGE: English

ABSTRACT: The hepatitis C virus (HCV) is the leading cause of chronic liver disease worldwide. It is estimated that about 170 million people are chronically infected with HCV. Chronic hepatitis C is a major cause of cirrhosis and hepatocellular carcinoma and HCV-related endstage liver disease is, in many countries, the first cause of liver transplantation. HCV infection is characterized by its propensity to chronicity. Because of its high genetic variability, HCV has the capability to escape the immune response of the host. HCV is not directly cytopathic and liver lesions are mainly related to immune-mediated mechanisms, which are characterized by a predominant type 1 helper cell response. Co-factors influencing the outcome of the disease including age, gender and alcohol consumption are poorly understood and other factors such as immunologic and genetic factors may play an important role. Recent studies have shown that the combination therapy with *alpha* *interferon* and *ribavirin* induces a sustained virological response in about 40% of patients with chronic hepatitis C. The sustained response rates are mainly dependent on the viral genotype (roughly 60% in genotype non-1 and 30% in genotype 1). Reliable diagnostic tools are now available and useful for detecting HCV

infection, to quantify viral load and to determine the viral type. The assessment of the viral quasispecies and the characterization of viral sequences might be clinically relevant but standardized and simple techniques are needed. The lack of animal models and of in vitro culture systems hampers the understanding of the pathogenesis of chronic hepatitis C and the development of new antivirals. New therapeutic schedules with higher and/or daily doses of *alpha* *interferon* do not seem to improve the efficacy greatly. The conjugation with *polyethylene* *glycol* (*PEG*) improved the pharmacodynamics and the efficacy of *alpha* *interferon*. Emerging new therapies include inhibitors of viral enzymes (protease, helicase and polymerase), cytokines (IL-12 and IL-10), antisense oligonucleotides and ribozymes. The first candidate compounds should be available in the next few years. The development of an effective vaccine remains the most difficult and pressing challenge. Because of the high protein variability of HCV, protective vaccines could be extremely difficult to produce and therapeutic vaccines seem more realistic. Considerable progress has been made in the field of HCV since its discovery 10 years ago but a major effort needs to be made in the next decade to control HCV-related liver disease.

6/AB/11 (Item 11 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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12356507 BIOSIS NO.: 200000110009

Treatment of chronic hepatitis C: Comparative virologic response rates among the different interferons.

AUTHOR: Lindsay Karen L(a)

AUTHOR ADDRESS: (a) Division of Gastroenterology and Liver Disease,

University of Southern California, 1355 San Pablo Street, 1st Floor, Los

Angeles, CA, 90033**USA

JOURNAL: Journal of Hepatology 31 (Suppl. 1):p232-236 1999

ISSN: 0168-8278

DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: English

SUMMARY LANGUAGE: English

ABSTRACT: End-treatment and sustained virologic response rates are similar in large, comparative controlled trials which have compared the standard dosing regimens of *interferon* *alpha*-2b to *interferon* *alpha*-n1 and consensus *interferon*, as well as to virologic response rates recently reported with *interferon* *alpha*-2b monotherapy for 24 weeks. For patients who have responded and relapsed after an initial course of *alpha* *interferon*, retreatment with consensus *interferon* for 48 weeks demonstrates a high sustained virologic response rate, similar to that reported with *interferon* *alpha*-2b combined with *ribavirin* for 24 weeks. Based on available pharmacokinetic and pharmacodynamic data, *pegylation* of *interferon* *alpha*-2a shows promise in demonstrating high sustained serum levels and 2',5' OAS activity. Preliminary data from a Phase II clinical trial of a 48-week treatment in naive patients demonstrates end-treatment and sustained virologic response rates similar to that seen with *interferon* *alpha*-2b combined with *ribavirin* for 48 weeks.

6/AB/12 (Item 12 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2000 BIOSIS. All rts. reserv.

BIOSIS NO.: 199900499771 Combination therapy with *peginterferon* alpha-2a (*PEG*-IFN) and *ribavirin* in the treatment of patients with chronic hepatitis C (CHC): A phase II open-label study. AUTHOR: Sulkowski M(a); Reindollar R; Yu J AUTHOR ADDRESS: (a) The Johns Hopkins Univ School of Medicine, Baltimore, MD **USA JOURNAL: Hepatology 30 (4 PART 2):p197A Oct., 1999 CONFERENCE/MEETING: 50th Annual Meeting and Postgraduate Courses of the American Association for the Study of Liver Diseases Dallas, Texas, USA November 5-9, 1999 SPONSOR: American Association for the Study of Liver Diseases ISSN: 0270-9139 RECORD TYPE: Citation LANGUAGE: English 6/AB/13 (Item 13 from file: 5) DIALOG(R) File 5: Biosis Previews(R) (c) 2000 BIOSIS. All rts. reserv. BIOSIS NO.: 199900486575 12191726 A dose-ranging study of *PEG*-Intron and *ribavirin* in chronic hepatitis C: Safety, efficacy, and virologic rationale. AUTHOR: Glue Paul(a); Rouzier-Panis R; Raffanel C; Sabo R; Gupta S K; Jacobs S; Clement R P; Ingravallo P; Zhong W; Hong Z; Garaud J J; Lau Jyn AUTHOR ADDRESS: (a) Schering-Plough Res Institute, Kenilworth, NJ**USA JOURNAL: Hepatology 30 (4 PART 2):p303A Oct., 1999 CONFERENCE/MEETING: 50th Annual Meeting and Postgraduate Courses of the American Association for the Study of Liver Diseases Dallas, Texas, USA November 5-9, 1999 SPONSOR: American Association for the Study of Liver Diseases ISSN: 0270-9139 RECORD TYPE: Citation LANGUAGE: English (Item 14 from file: 5) 6/AB/14 DIALOG(R) File 5: Biosis Previews(R) (c) 2000 BIOSIS. All rts. reserv. 11386392 BIOSIS NO.: 199800167724 Oral enzyme therapy in hepatitis C patients. AUTHOR: Stauder G(a); Kabil S AUTHOR ADDRESS: (a) Mucos Pharma, Clin. Res., Malvenweg 2, D-82538 Geretsried**Germany JOURNAL: International Journal of Immunotherapy 13 (3-4):p153-158 1997 ISSN: 0255-9625 DOCUMENT TYPE: Article RECORD TYPE: Abstract LANGUAGE: English ABSTRACT: In an open, randomized, clinical pilot trial, four groups with 20 hepatitis C patients each were treated with either 'liver support' therapy, with established medications (one group with *ribavirin*, one group with *alpha*-*interferon*), or with a novel oral test drug, Phlogenzym a combination of *hydrolytic* enzymes with the flavonoid rutosid. The liver transaminases, AST, ALT and S-gamma-GT markedly

improved over the period of three months in the three drug groups, but

only marginally in the liver support group, The best results were found with Phlogenzym which was even superior to *ribavirin* and *alpha**interferon*. The tolerance of the oral enzymes was excellent. Further clinical trials with longer observation times, greater numbers of patients, double-blind and partly placebo-controlled, are under way.

6/AB/15 (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2000 Bell & Howell. All rts. reserv.

02082518 63383152 Filling the biopharmaceutical pipeline Boswell, Clay

Chemical Market Reporter v258n18 PP: FR33-FR37 Oct 30, 2000 ISSN:

1092-0110 JRNL CODE: CHM

WORD COUNT: 2402

ABSTRACT: After the optimism of the 1980s and the caution of the 1990s, biopharmaceuticals are finally beginning to realize their potential. Four biopharmaceutical products had sales over \$1 billion last year, total sales for the nearly 100 marketed globally exceeded \$20 billion, and the industry pipeline is beginning to swell. Biopharmaceuticals can be divided into five categories on the basis of their form: proteins, antibodies, nucleic acids, glycotherapeutics, and cell- or tissue-based therapeutics. On the market, the most successful of these have been proteins, which accounted for 27 of the top 30 biopharmaceuticals in 1999. Protein drugs can in turn be classified by function as cytokines, hormones, clotting factors, tissue plasminogen activators and antigens (vaccines).

6/AB/16 (Item 2 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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02082517 63382865

Active pharmaceutical ingredients: The opportunities in the branded prescription market

Van Arnum, Patricia

Chemical Market Reporter v258n18 PP: FR14-FR32 Oct 30, 2000 ISSN: 1092-0110 JRNL CODE: CHM

WORD COUNT: 6643

ABSTRACT: The supply of active pharmaceutical ingredients to the branded prescription market is a key outlet for fine chemical producers. Much of the optimism for the custom manufacturing market relies on the expectations for increased drug output by the major pharmaceutical companies. Despite all the attention given to new product development, drug productivity remains fairly consistent with historical levels. A company-by-company analysis of the top drug companies reveals a reliance on established products, product line extensions through new indications and, for certain companies, significant generic defense efforts as key drugs come off patent.

6/AB/17 (Item 3 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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02082513 63382854

Pharma majors post strong results

Anonymous

Chemical Market Reporter v258n18 PP: 24 Oct 30, 2000 ISSN: 1092-0110

JRNL CODE: CHM WORD COUNT: 303

ABSTRACT: Third quarter earnings from major pharmaceutical companies were generally strong. Pfizer Inc. and Schering-Plough Corporation each posted results in the high-single digits, and Merck & Co. Inc., with gains from both its pharmaceutical and managed care businesses, reported a 29% gain in sales.

6/AB/18 (Item 4 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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00740463 93-89684

1993 health-care agency profiles

Anonymous

Medical Marketing & Media v28n7 PP: 20-76 Jul 1993 ISSN: 0025-7354

JRNL CODE: MMM WORD COUNT: 14124

ABSTRACT: Some advertising agencies responding to Medical Marketing & Media's 1993 survey, predict that 1993 will be a banner year despite the political and economic uncertainties that face many of their clients as they anticipate the results of health care reform and the possible impact on pricing. Of the 107 agencies responding to the survey, 56 say that business is up so far in 1993, compared to 1992. Another 16 report incomes are steady at 1992 levels. Increases in gross income range from over 100% for 2 agencies to single digits for about a dozen respondents. Twelve agencies list overseas affiliates. Agencies that provided figures for their 1992 billings or for their billing breakdown by media-source are profiled.

6/AB/19 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2000 Inst for Sci Info. All rts. reserv.

09003549 Genuine Article#: 355FX Number of References: 36

Title: Hepatitis C: Current and future treatment

Author(s): Keeffe EB (REPRINT)

Corporate Source: STANFORD UNIV, MED CTR, LIVER TRANSPLANT PROGRAM/STANFORD//CA/94305 (REPRINT)

Journal: INFECTIONS IN MEDICINE, 2000, V17, N9 (SEP), P603-&

ISSN: 0749-6524 Publication date: 20000900

Publisher: SCP COMMUNICATIONS INC, 134 W 29TH ST, NEW YORK, NY 10001-5304

Language: English Document Type: ARTICLE

Abstract: *Interferon* *alfa*-2b, 3 million units tiw, plus *ribavirin*, 1000 to 1200 mg daily for 6 to 12 months, has shown an improvement of 2-fold or more for all measures of efficacy when compared with interferon monotherapy. In the next year, treatment of chronic hepatitis C will involve *pegylated* interferons, either alone or in combination with *ribavirin*. Therapy in 3 to 5 years will likely be multidrug combinations, including inhibitors of the hepatitis C virus

(HCV) protease, helicase, or polymerase, with the aim of reducing serum levels or eradicating HCV RNA.

6/AB/20 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2000 Inst for Sci Info. All rts. reserv.

08966368 Genuine Article#: 350LA Number of References: 62
Title: Treatment of chronic hepatitis C virus infection in patients with cirrhosis

Author(s): Zeuzem S (REPRINT)

Corporate Source: UNIV FRANKFURT KLINIKUM, ZENTRUM INNEREN MED, MED KLIN 2, THEODOR STERN KAI 7/D-60590 FRANKFURT//GERMANY/ (REPRINT)

Journal: JOURNAL OF VIRAL HEPATITIS, 2000, V7, N5 (SEP), P327-334

ISSN: 1352-0504 Publication date: 20000900

Publisher: BLACKWELL SCIENCE LTD, P O BOX 88, OSNEY MEAD, OXFORD OX2 ONE, OXON, ENGLAND

Language: English Document Type: REVIEW

Abstract: Chronic hepatitis C virus (HCV) infection eventually leads to cirrhosis in 20-30% of patients and to hepatocellular carcinoma (HCC) in 1-5% of patients. Rates of sustained virological response with standard *interferon*-*alpha* (IFN-*alpha*) are low in patients without cirrhosis (generally < 20%) and are even lower in those with cirrhosis. Combination therapy with IFN and *ribavirin* improves response rates in patients with chronic hepatitis C without cirrhosis, and the results from subgroups of HCV-infected patients with advanced fibrosis or cirrhosis are encouraging. Importantly, treatment with IFN slows progression of liver fibrosis, regardless of HCV genotype or early response to therapy, and reduces the risk of HCC by two- to fivefold. The risk of development of HCC is also lower in patients who show at least a partial response to IFN therapy compared with those who show no response. There is a clear need for more definitive studies of treatment in patients with chronic hepatitis C and cirrhosis, ideally using therapies with greater efficacy. Nonetheless, based on the potential to slow the progression of liver fibrosis (regardless of treatment response) and to reduce the risk of HCC, a greater number of HCV-infected patients with cirrhosis should be considered as candidates for IFN treatment. Preliminary data indicate that *pegylated* IFNs have improved virological response rates and may have additional clinical benefits in the prevention or reduction of fibrosis and retardation of progression of cirrhosis and HCC in these patients.

6/AB/21 (Item 3 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2000 Inst for Sci Info. All rts. reserv.

08861837 Genuine Article#: 337LE Number of References: 26
Title: Firstline treatment for hepatitis C: combination interferon/
ribavirin versus interferon monotherapy

Author(s): Lai MY (REPRINT)

Corporate Source: NATL TAIWAN UNIV, COLL MED, GRAD INST CLIN MED/TAIPEI 10018//TAIWAN/ (REPRINT)

Journal: JOURNAL OF GASTROENTEROLOGY AND HEPATOLOGY, 2000, V15, S (MAY), P E130-E133

ISSN: 0815-9319 Publication date: 20000500

Publisher: BLACKWELL SCIENCE ASIA, 54 UNIVERSITY ST, P O BOX 378, CARLTON VICTORIA 3053, AUSTRALIA

Language: English Document Type: ARTICLE

Abstract: In the initial treatment of chronic hepatitis C, *interferon*-*alfa* (IFN-*alpha*) monotherapy for 24-48 weeks induces sustained response rates of only 10-20%. Combination therapy with IFN-alpha plus *ribavirin* induces a sustained response in 40-50% of patients, and can be now recommended as the firstline therapy for chronic hepatitis C. Stopping therapy at week 12 because of persistent viraemia is unnecessary with the combination therapy because later clearance of HCV RNA can still occur with a sustained response. Patients with HCV genotype 1 should receive 48 weeks of combination therapy, in contrast to 24 weeks for patients with genotypes 2 or 3. For patients who cannot tolerate the side effects of *ribavirin*, such as anaemia, IFN-alpha at 3 MU three times weekly for 48 weeks is preferred as the initial therapy. The long-acting *pegylated* IFN can be expected to enhance the efficacy of combination therapy in the treatment of chronic hepatitis C and appears to be much more potent as monotherapy. Further studies are needed to improve the current 'half-full' status of chronic hepatitis C treatment. (C) 2000 Blackwell Science Asia Pty Ltd.

6/AB/22 (Item 4 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2000 Inst for Sci Info. All rts. reserv.

08816375 Genuine Article#: 309RU Number of References: 0
Title: *Pegylated* *interferon* *alfa*-2a (*pegasys*(TM)) and *ribavirin* combination therapy for chronic hepatitis C: A phase II open-label study.

Author(s): Sulkowski MS; Reindollar R; Yu J

Corporate Source: JOHNS HOPKINS UNIV, SCH MED/BALTIMORE//MD/; CAROLINAS CTR LIVER DIS,/CHARLOTTE//NC/; HOFFMANN LA ROCHE,/NUTLEY//NJ/

Journal: GASTROENTEROLOGY, 2000, V118, N4,1,2 (APR), P236-236

ISSN: 0016-5085 Publication date: 20000400

Publisher: W B SAUNDERS CO, INDEPENDENCE SQUARE WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399

Language: English Document Type: MEETING ABSTRACT

6/AB/23 (Item 5 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2000 Inst for Sci Info. All rts. reserv.

08775377 Genuine Article#: 327VW Number of References: 30 Title: Therapeutic options for HCV - management of the infected individual Author(s): Foster GR (REPRINT)

Corporate Source: ST MARYS HOSP, IMPERIAL COLL SCH MED, DEPT MED, CTR LIVER, QEQM WING, PRAED ST/LONDON W2 1PG//ENGLAND/ (REPRINT)

Journal: BEST PRACTICE & RESEARCH IN CLINICAL GASTROENTEROLOGY, 2000, V14, N2 (APR), P255-264

ISSN: 1521-6918 Publication date: 20000400

Publisher: BAILLIERE TINDALL, 24-28 OVAL RD, LONDON NW1 7DX, ENGLAND

Language: English Document Type: ARTICLE

Abstract: Patients with chronic hepatitis C infection should be assessed by liver biopsy prior to consideration of anti-viral therapy. Patients with histologically mild disease should be observed at regular intervals and assessed with a repeat liver biopsy after an interval of 3-4 years. Those with severe disease should receive early treatment with interferon-se and *ribavirin*. The duration of therapy is determined by the genotype of the infecting virus-viral genotypes 2 and 3 require only 6 months of treatment but other genotypes should be treated for 12 months. Approximately 35-40% of treated patients will

respond to therapy with a permanent cessation of viral replication and improvement in liver histology. New therapies including *polyethylene* *glycol*, *PEGylated*, interferons and combination regimes involving amantadine are currently under evaluation and it is hoped that improved regimes will be developed in the near future.

(Item 6 from file: 34) 6/AB/24 DIALOG(R) File 34:SciSearch(R) Cited Ref Sci (c) 2000 Inst for Sci Info. All rts. reserv. Genuine Article#: 327KB Number of References: 7 08761195 Title: Coinfection by HIV and hepatitis C virus Author(s): Perronne C (REPRINT); BaniSadr F Corporate Source: HOP UNIV RAYMOND POINCARE, FAC MED PARIS OUEST, SERV MALAD INFECT & TROP/F-92380 GARCHES//FRANCE/ (REPRINT) Journal: MEDECINE ET MALADIES INFECTIEUSES, 2000, V30, N6 (JUN), P344-346 ISSN: 0399-077X Publication date: 20000600 Publisher: EDITIONS SCIENTIFIQUES MEDICALES ELSEVIER, 23 RUE LINOIS, 75724 PARIS CEDEX 15, FRANCE Language: French Document Type: EDITORIAL MATERIAL 6/AB/25 (Item 7 from file: 34) DIALOG(R) File 34:SciSearch(R) Cited Ref Sci (c) 2000 Inst for Sci Info. All rts. reserv. Genuine Article#: 317AC Number of References: 89 Title: Antiviral therapy of hepatitis C Author(s): Erhardt A (REPRINT); Petry W; Ebel M; Jablonowski H; Heintges T ; Haussinger D Corporate Source: UNIV DUSSELDORF, KLIN GASTROENTEROL HEPATOL & INFEKTIOL, MOORENSTR 5/D-40225 DUSSELDORF//GERMANY/ (REPRINT) Journal: ZEITSCHRIFT FUR GASTROENTEROLOGIE, 2000, V38, N3 (MAR), P259-269 ISSN: 0044-2771 Publication date: 20000300 Publisher: DEMETER VERLAG GEORG THIEME VERLAG, PETRA SCHLAGENHAUF, RUDIGERSTR 14, D-70469 STUTTGART, GERMANY Language: German Document Type: REVIEW Abstract: Hepatitis C is one of the world's leading infectious diseases. The interferon-*ribavirin* combination therapy is the new standard for the treatment of hepatitis C in naive and relapse patients. Virological sustained response rates can be more than doubled by the IFN-*ribavirin* combination therapy compared to IFN-monotherapy and treatment duration can be reduced to six months in many cases. The IFN-*ribavirin* combination therapy has a high relative benefit in patients with unfavorable predictive parameters like high viral load, HCV genotype-l infection and compensated Liver cirrhosis. Anemia is the most important side effect of the guanosin analogue *ribavirin*. There - are no official therapeutic recommendations for non-responder patients at present. These patients should be treated within controlled clinical trials. Monotherapy with *PEG*(*pegylated*)-interferons and combination therapies with *PEG*-interferons and *ribavirin* are the most promising future therapeutic options.

6/AB/26 (Item 8 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2000 Inst for Sci Info. All rts. reserv.

08565258 Genuine Article#: 301NV Number of References: 39

Title: Coinfection with the hepatitis C virus and HIV: current aspects Author(s): BaniSadr F (REPRINT) ; Perronne C

Corporate Source: HOP UNIV RAYMOND POINCARE, FAC MED PARIS OUEST, SERV MALAD INFECT & TROP, 104 BLVD RAYMOND POINCARE/F-92380 GARCHES//FRANCE/ (REPRINT)

Journal: MEDECINE ET MALADIES INFECTIEUSES, 2000, V30, 1 (MAR), PS43-S48 ISSN: 0399-077X Publication date: 20000300

Publisher: EDITIONS SCIENTIFIQUES MEDICALES ELSEVIER, 23 RUE LINOIS, 75724 PARIS CEDEX 15, FRANCE

Language: French Document Type: ARTICLE

Abstract: The treatment of coinfection with the hepatitis C virus (HCV) in HIV-infected patients was rarely discussed before the era of the HIV protease inhibitors, since the response to monotherapy with *interferon* *alpha* (*INF* *alpha*) was poor, with a mean prognosis of the HIV disease estimated at around ten years. In the present context, monitoring is reconsidered. The HIV-associated immunosuppression may be responsible fora false negativity of some serologic tests for HCV. The HIV-HCV coinfection increases the risk of maternofoetal transmission of HCV. Studies evaluating the influence of the HIV coinfection on the natural history of the HCV infection show its deleterious role. The immune restoration obtained with the highly active antiretroviral therapies is not linked with a decrease of the HCV viral load. The HIV-HCV coinfection is responsible for a threefold increase of the risk of elevation of seric transaminases when an antiretroviral treatment is given. The immune restoration obtained with an antiretroviral treatment may reveal the HCV infection and favor a rapid aggravation of hepatic histology and evolution toward cirrhosis. HCV-associated complications may become a major factor of morbidity and mortality, leading to the need for an anti-hepatitis C treatment in HIV-*infected* patients. The combination of *INF* *alpha* and *ribavirin* seems to be the best treatment, Its efficacy and tolerability must be evaluated in HIV-infected patients. Drug interactions are likely to occur, and *INF* *alpha*, like *ribavirin*, may favor CD4 lymphopenia. A new form of *INF* *alpha* with a prolonged half-life (*PEG*-*INF* *alpha*) seems to be promising. (C) 2000 Editions scientifiques et medicales Elsevier SAS.

6/AB/27 (Item 9 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2000 Inst for Sci Info. All rts. reserv.

08376330 Genuine Article#: 278HU Number of References: 20 Title: Clinical implications of hepatitis C viral kinetics Author(s): Zeuzem S (REPRINT)

Corporate Source: UNIV FRANKFURT KLINIKUM, ZENTRUM INNEREN MED, MED KLIN 2, THEODOR-STERN-KAI 7/D-60590 FRANKFURT//GERMANY/ (REPRINT)

Journal: JOURNAL OF HEPATOLOGY, 1999, V31, 1, P61-64

ISSN: 0168-8278 Publication date: 19990000

Publisher: MUNKSGAARD INT PUBL LTD, 35 NORRE SOGADE, PO BOX 2148, DK-1016 COPENHAGEN, DENMARK

Language: English Document Type: ARTICLE

Abstract: Antiviral treatment of patients with chronic hepatitis C can perturb the steady-state of virus production and clearance. From serial measurements of changes in viremia, kinetic information on the dynamics of hepatitis C virus (HCV) replication can be obtained. After a delay of about 9 h due to *interferon*-*alpha* pharmacokinetics, the decline of viremia in patients treated with *interferon*-*alpha* is characterized by a concave shape. In the first phase (day 1) a rapid dose-dependent decline in viral load is observed. The second phase

viral decline (greater than or equal to day 2) shows a much slower decline with no or less pronounced differences between the applied *interferon *- * alpha * schedules. While a first phase decline can be observed in almost all patients treated with *interferon*-*alpha*, non-responders typically reveal no further decline of viremia during the second phase. Kinetic analysis showed that combination therapy with *interferon*-*alpha* plus *ribavirin* has no direct synergistic antiviral effect in the initial 4 weeks of treatment of HCV-*infected* patients with 6 MU IFN *alpha* three times per week. Calculations revealed a minimum virus production and clearance per day in patients with chronic hepatitis C of approximately 10(10)-10(12) virions per day and an in vivo half-life of the virus in the order of a few hours. The high turnover rates of HCV explain the rapid generation of viral diversity and the opportunity for viral escape from the host immune surveillance and antiviral therapy. The implications derived from HCV kinetics comprise the consideration of more aggressive initial dosing regimens (especially daily doses), the possibility to optimize therapy individually not only according to pretreatment parameters but also according to the initial decline of viral load and the perception that eradication of the virus will rely on the half-life of infected cells.

6/AB/28 (Item 10 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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08232249 Genuine Article#: 260TU Number of References: 82
Title: Characteristics of hepatitis C-virus and viral predictors of therapeutical response

Author(s): Ambrosch A (REPRINT); Konig W

Corporate Source: UNIV KLIN, INST MIKROBIOL, LEIPZIGER STR 44/D-39120 MAGDEBURG//GERMANY/ (REPRINT); OTTO VON GUERICKE UNIV, INST MIKROBIOL/MAGDEBURG//GERMANY/

Journal: MEDIZINISCHE KLINIK, 1999, V94, N11 (NOV 15), P626-632

ISSN: 0723-5003 Publication date: 19991115

Publisher: URBAN & VOGEL, LINDWURMSTRASSE 95, D-80337 MUNICH, GERMANY

Language: German Document Type: REVIEW

Abstract: square Natural History of Hepatitis C-Infection and Viral Characteristics: Hepatitis C-virus (HCV) infection is a major cause of non-A, non-B-hepatitis and, additionally, is associated with liver cirrhosis and hepato-cellular carcinoma. The high degree of chronificity of HCV-infection is reasonable due to antigenic variability of neutralizing epitopes leading to incomplete immunoresponse with sublity of neutralizing epitopes leading to incomplete immunoresponce with subsequent virus persistence. Besides genetic variants of HCV within a virus population (quasispecies nature of HCV), different genotypes are classified being genetically and phenotypically distinct, and geographically restricted in part. Genotyping of HCV is not only important for phylogenetic and epidemiological studies, but also a prodictive marker for pathogenesis and therapy.

square Viral Predictors of HCV Therapy: In a meta-analysis of 18 therapeutical studies of chronical HCV infections, genotype 1 and high levels of viremia determined markedly the response to interferon therapy. In this context, clinical trials have proven the effect of a combined therapy with interferon and *ribavirin*. Especially patients with HCV genotype 1 or high levels of viremia had a real benefit from combined antiviral therapy in comparison to monotherapy with interferon.

square Conclusion and Future Concepts: Besides recent concepts improving the therapeutical response to HCV infection, further effort is necessary to develop more successful strategies for eradication of hepatitis C virus. In this context, variations of interferon therapy should be evaluated (e.g. higher and daily doses, longer duration of interferon therapy, ''retarded'' interferon (*PEG*-IFN). In addinon, new therapeutical concepts should be performed including a combination of interferon with other known antiviral agents (amantadine), a combination with immunomodulators (GM-CSF, thymosin alpha 1), the development of new antiviral agents (inhibitors of viral proteases, helicases and polymerases) and the exploration of anti-viral, molecular strategies (specific ribozymes, antisense oligonucleotides and DNA-vaccination). Nevertheless, the development of an effective vaccination should be the most important challenge for the future.

(Item 11 from file: 34)

(Item 12 from file: 34) DIALOG(R) File 34: SciSearch(R) Cited Ref Sci

6/AB/29

6/AB/30

DIALOG(R) File 34:SciSearch(R) Cited Ref Sci (c) 2000 Inst for Sci Info. All rts. reserv. 08208843 Genuine Article#: 258KL Number of References: 58 Title: Treatment of hepatitis C Author(s): Erhardt A (REPRINT); Petry W; Kappert G; Heintges T; Haussinger Corporate Source: UNIV DUSSELDORF, KLIN GASTROENTEROL HEPATOL & INFEKTIOL, MOORENSTR 5/D-40225 DUSSELDORF//GERMANY/ (REPRINT) Journal: MEDIZINISCHE WELT, 1999, V50, N10 (OCT), P426-432 ISSN: 0025-8512 Publication date: 19991000 Publisher: F K SCHATTAUER VERLAG GMBH, P O BOX 10 45 43, LENZHALDE 3, D-70040 STUTTGART, GERMANY Document Type: ARTICLE Language: German Abstract: Hepatitis C is one of the world's leading infectious diseases; With an interferon monotherapy sustained virological response rates of only 10-20% can be achieved in naive patients with chronic hepatitis C. The new combination therapy of interferon and *ribavirin* can achieve more than doubled sustained virological response rates in naive patients. In patients, who relapsed after an IFN monotherapy, sustained response rates of 50% could be achieved by IFN-*ribavirin* therapy. Thus, combination of interferon and *ribavirin* has to be referred to as new standard in the therapy of hepatitis C. *Ribavirin* is a guanosine analogue, the most common side effect is hemolytic anemia. IFN-*ribavirin* therapy was ineffective for retherapy of IFN-nonresponder patients. Extension of combination therapies, induction therapies with daily IFN-dosing, the administration of *pegylated* interferons and new drugs like protease-/helicase-inhibitors, amantadine, thymosine are possible future therapeutic options.

(c) 2000 Inst for Sci Info. All rts. reserv. Number of References: 110 07986324 Genuine Article#: 232MG Title: Developments in hepatitis C during 1997-1999 Author(s): Poordad FF (REPRINT); Gish RG Corporate Source: JOHNS HOPKINS UNIV, SCH MED, DEPT MED, DIV GASTROENTEROL, 1830 E MONUMENT ST, 423/BALTIMORE//MD/21205 (REPRINT) Journal: EXPERT OPINION ON THERAPEUTIC PATENTS, 1999, V9, N9 (SEP), P

1249-1262

ISSN: 1354-3776 Publication date: 19990900

Publisher: ASHLEY PUBL LTD, 1ST FL, THE LIBRARY, 1 SHEPHERDS HILL HIGHGATE,

LONDON N6 5QJ, ENGLAND

Language: English Document Type: REVIEW

Abstract: Hepatitis C has became an area of intensive research over the past several years. With current worldwide prevalence estimated at 150 to 200 million people, and with almost four million Americans infected, ii is a major public health issue [1]. Of those infected, over 85% will develop chronic infection [2,3]. of those who develop chronic infection, 20% will develop cirrhosis, and in the cirrhotic population, 20% develop hepatocellular carcinoma [4]. It is still difficult in the early stages of disease to determine who is at risk of developing cirrhosis, and therefore who would benefit most from therapy. manifestations of the disease that lead clinicians to initiate therapy [5]. The However, even in the non-cirrhotic individual, there are many symptomatic ultimate goal of treatment is to achieve sustained eradication of the virus. Until recently, the mainstay of treatment has been interferon (IFN-) monotherapy, which is less than 25% effective and is generally accompanied by side effects. Newer therapeutic modalities focus on less toxic compounds, targeting viral proteins such as protease or helicase, or viral genomic segments with antisense peptides and ribozymes. This chapter is an overiview of the patent literature from 1997 to mid-1999 and discusses possible new treatement options including vaccines and delivery systems to cells (Figure 1).

6/AB/31 (Item 13 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2000 Inst for Sci Info. All rts. reserv.

07795351 Genuine Article#: 209DU Number of References: 49
Title: Treatment strategies for chronic hepatitis C: Update since the 1997
National Institutes of Health Consensus Development Conference
Author(s): Ahmed A; Keeffe EB (REPRINT)

Corporate Source: STANFORD UNIV, MED CTR, 750 WELCH RD, SUITE 210/PALO ALTO//CA/94304 (REPRINT); STANFORD UNIV, SCH MED, DIV GASTROENTEROL, DEPT MED/STANFORD//CA/94305

Journal: JOURNAL OF GASTROENTEROLOGY AND HEPATOLOGY, 1999, V14, S (MAY), P S12-S18

ISSN: 0815-9319 Publication date: 19990500

Publisher: BLACKWELL SCIENCE ASIA, 54 UNIVERSITY ST, P O BOX 378, CARLTON VICTORIA 3053, AUSTRALIA

Language: English Document Type: ARTICLE

Abstract: The National Institutes of Health Consensus Development Conference on the management of hepatitis C, which took place in March 1997 and was published in September 1997, established guidelines for the diagnosis and management of chronic hepatitis C. The recommended treatment of chronic hepatitis C virus (HCV) *infection* is *interferon* *alpha* (or equivalent) 3 MIU three times per week for 12 months, in patients showing response to therapy after 3 months. Patients with the greatest risk for progression to cirrhosis (i.e. persistently elevated alanine aminotransferase levels, detectable serum HCV-RNA and liver biopsy showing portal or bridging fibrosis and at least moderate inflammation and necrosis) are recommended as candidates for therapy. The indication for therapy is less obvious in patients with milder histological changes, compensated cirrhosis and age less than 18 years or older than 60 years. Treatment is not indicated for patients with persistently normal aminotransferases or decompensated cirrhosis. This review outlines the background studies that led to the

recommendations of the National Institutes of Health for the treatment of chronic hepatitis C and reviews newer evolving treatment strategies over the past year. In particular, the results of studies exploring treatment: options for relapsers and non-responders to prior interferon therapy and the reported results to date on the safety and efficacy of combination therapy with interferon plus *ribavirin* are highlighted. Although aggressive suppression of HCV-RNA with induction therapy (daily and/or higher doses) or long-acting *pegylated* interferon preparations may improve the current results of therapy, few data are yet available. Finally, the treatment of chronic hepatitis C with protease inhibitors holds promise but has yet to reach the stage of clinical trials.

6/AB/32 (Item 14 from file: 34) DIALOG(R)File 34:SciSearch(R) Cited Ref Sci (c) 2000 Inst for Sci Info. All rts. reserv. 06204591 Genuine Article#: YB712 Number of References: 194 Title: In search of a selective antiviral chemotherapy Author(s): DeClercq E (REPRINT) Corporate Source: UNIV CATHOLIQUE LOUVAIN, REGA INST MED RES, MINDERBROEDERSSTR 10/B-3000 LOUVAIN//BELGIUM/ (REPRINT) Journal: CLINICAL MICROBIOLOGY REVIEWS, 1997, V10, N4 (OCT), P674-& ISSN: 0893-8512 Publication date: 19971000 Publisher: AMER SOC MICROBIOLOGY, 1325 MASSACHUSETTS AVENUE, NW, WASHINGTON, DC 20005-4171 Language: English Document Type: REVIEW (Item 1 from file: 144) 6/AB/33 DIALOG(R) File 144: Pascal (c) 2000 INIST/CNRS. All rts. reserv.

14677854 PASCAL No.: 00-0351424 New drugs for hepatitis C virus (HCV) Hepatitis C CLARKE B E

Virology Research Unit, GlaxoWellcome Medicine Research Centre, Gunnels Wood Road, Stevenage, Hertfordshire, SGI 2NY, United Kingdom

Department of Medicine, QEQM Wing, St Marys Hospital, London, W2 IPG, United Kingdom

Journal: Bailliere's best practice & research. Clinical gastroenterology, 2000, 14 (2) 293-305

Language: English

FOSTER G R, ed

Lack of efficacy and significant side effects have severely limited the use of interferon-a (IFN-a) as the standard therapy for non-A non-B hepatitis (NANBH) caused by hepatitis C virus (HCV) and alternative, improved therapies are urgently sought. Attempts have been made to improve the potency and tolerability of IFN-a by adjusting dosing regimens, methods of delivery and length of treatment. Furthermore, a number of different agents have been used in combination with IFN-a and, from these studies, therapeutic options have been galvanized by the synergistic effects of IFN-a and *ribavirin*. Nevertheless, the majority of patients with HCV still do not sustain lasting therapeutic benefit from this combination and continuing research is required to identify new therapeutic candidates that will have more potent anti-viral activity and less severe side effects. This review focuses on the progress that has been made in this area and the prospects for new effective therapies in the near future.

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6/AB/34 (Item 1 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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10525621 20417957

A dose-ranging study of *pegylated* *interferon* *alfa*-2b and *ribavirin* in chronic hepatitis C. The Hepatitis C Intervention Therapy Group.

Glue P; Rouzier-Panis R; Raffanel C; Sabo R; Gupta SK; Salfi M; Jacobs S; Clement RP

Schering-Plough Research Institute, Kenilworth, NJ. paul.glue@spcorp.com Hepatology (UNITED STATES) Sep 2000, 32 (3) p647-53, ISSN 0270-9139 Journal Code: GBZ

Languages: ENGLISH

Document type: CLINICAL TRIAL; JOURNAL ARTICLE; RANDOMIZED CONTROLLED TRIAL

The objectives of this study were to assess the safety, pharmacokinetics, and efficacy of *pegylated* *interferon* *alfa*-2b (*PEG*-Intron) plus *ribavirin* in patients with chronic hepatitis C. A total of 72 patients (35 men/37 women, age range 20-68 years) with clinically compensated chronic hepatitis C virus (HCV) were enrolled into this open-label, randomized, active controlled study. Patients received either *PEG*-Intron 0.35, 0.7, or 1.4 &mgr;q/kg subcutaneously weekly for 24 weeks alone, or in combination with *ribavirin* 600, 800, or 1,000 to 1,200 mg orally daily. Patients were evaluated during treatment and after a 24-week follow-up period for safety and efficacy. Detailed pharmacokinetic assessments were performed at weeks 1 and 4. *PEG* -Intron alone produced expected dose-related reductions in white cells, neutrophils and platelets. Addition of *ribavirin* reduced hemoglobin levels in a dose-related manner, did not further reduce *PEG*-Intron-induced decreases in neutrophil or white cell count, and increased platelet counts. Neutrophil function tests (C5a and FMLP migration, killing curves) were unaltered. Reported adverse events (flu-like symptoms, asthenia) were qualitatively similar in all dose groups. Anti-HCV activity, as measured by loss of detectable serum HCV RNA (i.e. <100 copies/mL) at the end of treatment (week 24) and after 24 weeks of follow-up (week 48) showed dose-response trends for *PEG*-Intron. At each *PEG* -Intron dose level, anti-HCV activity was higher in patients coadministered *ribavirin* than in patients treated with *PEG*-Intron monotherapy. There was no evidence of pharmacokinetic interactions with either drug. We conclude that the safety and tolerability of combined *PEG* -Intron/*ribavirin* and *PEG*-Intron alone were comparable. Combined *PEG* -Intron/*ribavirin* showed dose-related synergistic anti-HCV effects, which were numerically superior to those obtained with *PEG*-Intron monotherapy.

6/AB/35 (Item 2 from file: 155) DIALOG(R)File 155:MEDLINE(R)

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10335100 20184082

Interferon and *ribavirin* combination therapy: indications and schedules.

Weiland O

Division of Infectious Diseases I73, Huddinge Hospital and Karolinska Institute, Huddinge, Sweden.

Forum (ITALY) Jan-Mar 2000, 10 (1) p22-8, ISSN 1121-8142

JIANG 09/317688 PAGE 19 OF 32

Journal Code: COR Languages: ENGLISH

Document type: JOURNAL ARTICLE; REVIEW; REVIEW, TUTORIAL

Treatment outcome for patients with chronic hepatitis C virus infection has greatly improved during the last years with the development of interferon (IFN) and *ribavirin* combination therapy. The final decision to treat or not, however, is complex and should be based on several factors such as the age of the patient, the general health, the risk of developing cirrhosis and the probability of a cure with treatment. Combination therapy with standard doses (IFN-a 3 x 106 IU three times per week plus *ribavirin* 1000-1200 mg daily in two divided doses) for six (up to 12) months significantly improves the sustained biochemical and virological response rates 2-3 times as compared to IFN alone given during 12 months. Combination therapy has thus become standard therapy for na ve patients and relapse patients after a prior IFN treatment course. For patients with favourable baseline viral characteristics (genotype 2 and 3 irrespective of viral load) six months combination therapy is sufficient whereas patients with unfavourable viral baseline characteristics (genotype 1 with high baseline viral load) will need 48 weeks combination treatment. In addition, for patients with compensated cirrhosis, combination therapy is superior and better tolerated than IFN monotherapy. For the future better optimised treatment schedules and dosing regimens for IFN in combination with *ribavirin* need to be worked out and individualised according to genotype to further improve treatment results. Utilisation of new IFN formulas such as *pegylated* IFN and consensus IFN in combination regimens will probably improve treatment further.

6/AB/36 (Item 3 from file: 155) DIALOG(R)File 155:MEDLINE(R)

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10265367 20079345

Therapy of special HIV-associated diseases: HCV-HIV-co-infection and AIDS-related Kaposi's sarcoma - official satellite to the 7th European Conference on Clinical Aspects and Treatment of HIV-infection, October 23, 1999 in Lisbon, Portugal.

Goebel FD; Jablonowski H

Medizinische Poliklinik der Universitat Munchen, Pettenkoferstr. 8a, D-80336 Munchen, Germany. goebel@pk-i.med-uni-muenchen.de

European journal of medical research (GERMANY) Dec 16 1999, 4 (12) p507-13, ISSN 0949-2321 Journal Code: COQ

Languages: ENGLISH

Document type: CLINICAL TRIAL; CLINICAL TRIAL, PHASE III; CONGRESSES; RANDOMIZED CONTROLLED TRIAL

BACKGROUND: In the era of highly active antiretroviral therapy (HAART), certain complications of HIV-disease as e.g. opportunistic infections and Kaposi s sarcoma (KS) have significantly diminished. New insights in pathological pathways revealed the role of co-viruses as HHV-8 and HCV so that in our days AIDS-associated KS and chronical hepatitis C (CHC) in HIV-infected persons can be considered as the result of opportunistic infections with HHV-8 or HCV respectively. - Though the overall incidence of AIDS-KS is declining, it remains as a reason of severe disease complication and fatal outcome. Actual therapeutic strategies have to be evaluated regarding safety and efficacy as a major option, while cost-effectiveness of treatment and quality of life aspects for the patient must also be included to assess a successful disease management within the up to now merely palliative setting. HIV-infection evidently triggers the natural course of CHC in terms of more progressive liver disease. Otherwise there seems to be no clinical benefit of HAART on CHC. Until recently

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IFN-alfa treatment was the only therapy available for patients with CHC. As initial therapy with a combination of IFN-alfa and *ribavirin* turned out to be more effective than IFN-monotherapy in HCV-infected persons, it has now to be considered to include anti-HCV-combination treatment into the therapeutic program of HIV-HCV-coinfected patients under HAART. - Within 7th European Conference on Clinical Aspects and Treatment of HIV-Infection, which took place in Lisbon from October 23 to 27 1999, a satellite symposium was organized to evaluate actual treatment options in the management of special HIV-associated complications focussing on AIDS-KS and HCV-HIV-coinfection. METHODS: To evaluate the safety and efficacy of IFN-alfa-2b and *ribavirin* combination therapy in patients with CHC, a total of 1773 treatment-naive patients was recruited in two phase III clinical trials. They were randomized in 4 treatment schedules to receive IFN-alfa-2b plus *ribavirin* or placebo for 24 weeks or 48 weeks respectively. Cost-effectiveness data compared treatment with liposomal daunorubicin and *pegylated* liposomal doxorubicin in AIDS-KS-patients within two phase III studies. The assumptions were a comparable efficacy, gastrointestinal toxicity, and frequency of opportunistic infections (OI). quality-of-life-study on KS-treatment with *pegylated* liposomal doxorubicin (PLD, Caelyx(R)) was based on a phase III study with an overall median survival of 160 days for the patients, who completed questionnaires with 30 items specific for HIV-related diseases. The health-related quality-of life (HRQL) assessment and analysis includes 11 domains, in which improvements were calculated within a multiple analysis to be significant if they are higher than 10 (at a 0-100 scale). RESULTS: In 1775 treatment-naive patients with CHC, response rates to a combination therapy of IFN-alfa-2b with *ribavirin* was significantly higher in all patient groups with more than 60% of sustained virological response in patients with genotype 2 and 3, while patients with genotype 1 (poorer prognosis) benefit from extended duration from 24 to 48 weeks (17% versus 29% of sustained virological response). - *Pegylated* liposomal doxorubicin (PLD, Caelyx(R)) in the treatment of AIDS-related KS is more effective and less toxic than BV or ABV. Cost-effectiveness analysis suggests that PLD is preferable over liposomal daunorubicin, BV and ABV. Regarding the HRQL-assessment, PLD came out to be superior in 9 of 11 domains tested, the greatest improvement in general health and pain relief. CONCLUSIONS: As the combination therapy of IFN-alfa-2b with *ribavirin* is the first treatment in CHC, there is an urgent need to consider the therapeutical strategies in this field in HCH-HIV coinfected patients. (ABSTRACT TRUNCATED)

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6/AB/37 (Item 1 from file: 351)
DIALOG(R)File 351:Derwent WPI
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013415316

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WPI Acc No: 2000-587254/200055

XRAM Acc No: C00-175086

Use of a *pegylated* *interferon*-*alpha* for treating HIV-1 patients,

especially those co-infected with hepatitis C

Patent Assignee: SCHERING CORP (SCHE)

Inventor: GLUE P W; LAUGHLIN M A; STALGIS C O Number of Countries: 089 Number of Patents: 003

Patent Family:

Patent No Kind Date Applicat No Kind Date Week WO 200051631 A2 20000908 WO 2000US5361 A 20000301 200055 B EP 1034790 A2 20000913 EP 2000301695 A 20000302 200055 CA 2299893 A1 20000902 CA 2299893 A 20000301 200059

Priority Applications (No Type Date): US 99454004 A 19991203; US 99260388 A 19990302; US 99268521 A 19990312; US 99288358 A 19990408 Patent Details: Patent No Kind Lan Pg Filing Notes Main IPC WO 200051631 A2 E 45 A61K-038/21 Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CZ DE DK DM EE ES FI GB GD GE HR HU ID IL IN IS JP KG KR KZ LC LK LR LT LU LV MA MD MG MK MN MX NO NZ PL PT RO RU SE SG SI SK SL TJ TM TR TT TZ UA US UZ VN YU ZA Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW EP 1034790 A2 E A61K-038/21 Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI CA 2299893 A1 E A61K-038/21 Abstract (Basic): WO 200051631 A2 Abstract (Basic): NOVELTY - Use of a *pegylated* *interferon*-*alpha* for preparation of a medicament for treating human immuno-virus-1 (HIV-1) infections, is new. (N.B. ''*Pegylated* *interferon*-*alpha*'' indicates *polyethylene* *glycol* modified conjugates of *interferon*-*alpha*). DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the use of an anti-HIV-1 drug therapy and *pegylated* *interferon*-*alpha* for the preparation of a medicament for treating HIV-1 infections. ACTIVITY - Anti-HIV; Virucide; Hepatotropic Tests are described but no results are given. USE - The methods are for the treatment of adult and pediatric $\ensuremath{\mathsf{HIV}}\xspace-1$ patients, especially those co-infected with HCV. ADVANTAGE - The methods aim to lower detectable HIV-1 RNA in patients. pp; 45 DwgNo 0/0 6/AB/38 (Item 2 from file: 351) DIALOG(R) File 351: Derwent WPI (c) 2000 Derwent Info Ltd. All rts. reserv. 013270634 WPI Acc No: 2000-442540/200038 XRAM Acc No: C00-134661 Use of *ribavirin* and *pegylated* *interferon* *alpha* for treatment of chronic hepatitis C comprises administration in two specific time periods Patent Assignee: SCHERING CORP (SCHE) Inventor: ALBRECHT J K; GLUE P W Number of Countries: 087 Number of Patents: 002 Patent Family: Patent No Applicat No Kind Date Week Kind Date A2 20000629 WO 99US27935 WO 200037110 Α 19991216 200038 B AU 200021570 20000712 AU 200021570 Α 19991216 200048 Priority Applications (No Type Date): US 98215876 A 19981218 Patent Details: Patent No Kind Lan Pq Main IPC Filing Notes WO 200037110 A2 E 33 A61K-047/48 Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CZ DE DK DM EE ES FI GB GD GE HR HU ID IL IN IS JP KG KR KZ LC LK LR LT LU LV MA MD MG MK MN MX NO NZ PL PT RO RU SE SG SI SK SL TJ TM TR TT

TZ UA UZ VN YU ZA

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
AU 200021570 A A61K-047/48 Based on patent WO 200037110

Abstract (Basic): WO 200037110 A2

Abstract (Basic):

NOVELTY - The use of *ribavirin* (I) and *pegylated* *interferon* *alpha* (II) for the preparation of a composition for treating a patient suffering from chronic hepatitis C infection to eradicate detectable HCV (hepatitis C virus)-RNA, is new and comprises administering (I) and (II) in two treatment time periods.

DETAILED DESCRIPTION - The use of *ribavirin* (I) and *pegylated* *interferon* *alpha* (II) for the preparation of a composition for treating a patient suffering from chronic hepatitis C infection to eradicate detectable HCV (hepatitis C virus)-RNA, is new and comprises administering (I) and (II) in two treatment time periods:

- (a) (I) and an induction dosing amount of (II) are administered for a period to substantially lower detectable HCV-RNA serum levels; and
- (b) (I) and (II) are administered for a period of 20 30 weeks to eradicate detectable HCV-RNA at least 20 30 weeks after the end of (a) and to maintain no detectable HCV-RNA for at least 24 weeks after the end of (b).

An INDEPENDENT CLAIM is also included for the use of (I) and (II) for the preparation of a composition for treating a patient suffering from chronic hepatitis C infection to eradicate detectable HCV-RNA, comprising administering (I) and (II) in two treatment time periods:

- (a) (I) and an induction dosing amount of (II) are administered for a period to eradicate detectable HCV-RNA; and
- (b) (I) and (II) are administered for a period of 20-30 weeks to maintain no detectable HCV-RNA at least 20-30 weeks after the end of (a) and to maintain no detectable HCV-RNA for at least 24 weeks after the end of (b).

ACTIVITY - Virucide; hepatotropic; antiinflammatory. MECHANISM OF ACTION - Viral replication inhibitors.

USE - The methods are used to eradicate or substantially lower detectable HCV-RNA levels and therefore are useful for treating patients suffering from chronic hepatitis C infection (claimed).

ADVANTAGE - The methods provide an improved therapy over prior art for treating chronic hepatitis C patients and for producing a sustained virological response 24 weeks after treatment in a greater number of patients.

pp; 33 DwgNo 0/0

6/AB/39 (Item 3 from file: 351)

DIALOG(R) File 351: Derwent WPI

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013270626

WPI Acc No: 2000-442532/200038

XRAM Acc No: C00-134653

Use of interleukin-10 for improving liver histology in difficult to treat

patient having chronic hepatitis C virus infection

Patent Assignee: SCHERING CORP (SCHE)
Inventor: DAVIS G L; GRINT P C; NELSON D R

Number of Countries: 087 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week WO 200037096 A2 20000629 WO 99US27952 A 19991220 200038 B

AU 200021580 A 20000712 AU 200021580 A 19991220 200048

Priority Applications (No Type Date): US 99425716 A 19991022; US 98218842 A 19981222; US 99293742 A 19990416

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes WO 200037096 A2 E 21 A61K-038/20

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CZ DE DK DM EE ES FI GB GD GE HR HU ID IL IN IS JP KG KR KZ LC LK LR LT LU LV MA MD MG MK MN MX NO NZ PL PT RO RU SE SG SI SK SL TJ TM TR TT TZ UA UZ VN YU ZA

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200021580 A A61K-038/20 Based on patent WO 200037096

Abstract (Basic): WO 200037096 A2

Abstract (Basic):

NOVELTY - Use of interleukin-10 is claimed in a composition for improving liver histology and liver function, for treating and/or preventing liver damage and/or hepatic fibrosis and for modulating the inflammatory response and the fibrosis process responsible for destruction of the liver in a difficult-to-treat patient afflicted with a chronic hepatitis C virus infection.

ACTIVITY - Antiviral.

MECHANISM OF ACTION - None given.

 \mbox{USE} - Used for treating liver damage in difficult to treat patients with chronic hepatitis C virus infections.

pp; 21 DwgNo 0/0

6/AB/40 (Item 4 from file: 351) DIALOG(R)File 351:Derwent WPI

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013178502

WPI Acc No: 2000-350375/200030 Related WPI Acc No: 2000-339641

XRAM Acc No: C00-106527

New *ribavirin* derivatives, useful optionally in combination with *interferon*-*alpha*, for treating chronic hepatitis C *infection*

Patent Assignee: SCHERING CORP (SCHE)

Inventor: BENNETT F; GANGULY A K; GIRIJAVALLABHAN V M; LOVEY R G; MCCORMICK
 J; SAKSENA A K

Number of Countries: 088 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week WO 200023455 A1 20000427 WO 99US21450 A 19991014 200030 B AU 200011976 A 20000508 AU 200011976 A 19991014 200037

Priority Applications (No Type Date): US 98174059 A 19981016 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes WO 200023455 Al E 88 C07H-019/056

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CZ DE DK DM EE ES FI GB GD GE HR HU ID IL IN IS JP KG KR KZ LC LK LR LT LU LV MA MD MG MK MN MX NO NZ PL PT RO RU SE SG SI SK SL TJ TM TR TT TZ UA US UZ VN YU ZA

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200011976 A C07H-019/056 Based on patent WO 200023455

Abstract (Basic): WO 200023455 Al Abstract (Basic):

NOVELTY - *Ribavirin* derivatives (I) and their salts are new.

DETAILED DESCRIPTION - *Ribavirin* derivatives of formula (I) and their salts are new.

at least one of R2, R3, R5=polyalkylene oxide polymer conjugate and at least one of the remaining R2, R3, R5=H, R6(W)xC0, R6(W)xCS, R6(W)xC=NR18, (HO)2PO, R6(W)xPO(OH) or HOSO2 and at least one of R2, R3, R5 is not H;

R6=H, alkyl alkanoyl, aryl, heterocyclyl, cycloalkyl, NR7aR7b, alkenyl or alkynyl, where alkyl, alkanoyl, alkenyl or alkynyl are optionally substituted by halo, phenyl, cycloalkyl, NR7aR7b, OH or alkoxy; or

R6=aryl substituted by phenyl; halo, CN, NO2, OH, R18, CF3, SH, SR7a, SOR7a, NR7aR7b, COOH, CO2-, OR7a, O-M+ or S-M+;

M+=alkali metal;

W=O, NR18 or S;

R7a=H; alkyl, alkanoyl or aryl optionally substituted by phenyl, halo, CN, NO2, OH, COOH or alkoxy;

R7b=H, alkyl, aryl optionally substituted by phenyl, halo, CN, NO2, OH, COOH or alkoxy; or

R7a and R7b taken together with N and one of CHR7a, NR7a, O, S, SO or SO2 form a 5-7-membered ring;

R17=H, OR7a, NR7aR7b, R6(W) \times CO, R6(W) \times CS, R6(W) \times C=NR18, (H0)2PO, R6(W) \times PO(OH) or HOSO2;

R18=H, alkanoyl or alkyl;

x=1.

INDEPENDENT CLAIMS are also included for:

(1) *ribavirin* derivatives of formula (II)-(IV).

at least one of R2', R3', R5'=polyalkylene oxide polymer conjugate and at least one of the remaining R2', R3', R5' is a natural or unnatural alpha-amino acid residue;

at least one of R50, R52, R53=polyalkylene oxide polymer conjugate and the remaining 2 of R50, R52, R53=H or polyalkylene oxide polymer conjugate;

R50'=polyalkylene oxide polymer conjugate;

(2) use of (I)-(IV) optionally in combination with *interferon*- * alpha* for treating patients having chronic hepatitis C infection to eradicate detectable HCV-RNA.

ACTIVITY - Antiviral.

USE - (I)-(IV) are used, optionally in combination with an *interferon*-*alpha*, for treating chronic hepatitis C *infection* to eradicate detectable HCV-RNA. Also for treating patients having a susceptible viral infection (all claimed).

pp; 88 DwgNo 0/0

6/AB/41 (Item 5 from file: 351) DIALOG(R)File 351:Derwent WPI

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013167768

WPI Acc No: 2000-339641/200029 Related WPI Acc No: 2000-350375 XRAM Acc No: C00-103094

Use of new and known *ribavirin* derivatives and *interferon*-*alpha* for treating chronic hepatitis C *infection*

Patent Assignee: SCHERING CORP (SCHE)

Inventor: BENNETT F; GANGULY A K; GIRIJAVALLABHAN V M; LOVEY R G; MCCORMICK

J; SAKSENA A K

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Number of Countries: 087 Number of Patents: 002
Patent Family:
Patent No
                             Applicat No
                                            Kind Date
              Kind
                     Date
                                                            Week
WO 200023454 Al 20000427 WO 99US21448
                                          A 19991014 200029 B
AU 200011975 A 20000508 AU 200011975 A 19991014 200037
Priority Applications (No Type Date): US 99348534 A 19990707; US 98174059 A
  19981016
Patent Details:
Patent No Kind Lan Pg
                         Main IPC
                                     Filing Notes
WO 200023454 A1 E 120 C07H-019/056
   Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN
   CR CZ DE DK DM EE ES FI GB GD GE HR HU ID IL IN IS JP KG KR KZ LC LK LR
   LT LU LV MA MD MG MK MN MX NO NZ PL PT RO RU SE SG SI SK SL TJ TM TR TT
   TZ UA UZ VN YU ZA
   Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
   IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
                       C07H-019/056 Based on patent WO 200023454
AU 200011975 A
Abstract (Basic): WO 200023454 Al
Abstract (Basic):
        NOVELTY - Use of *ribavirin* derivatives (I) and *interferon*-
    *alpha* is claimed for treating chronic hepatitis C infection so that
    HCV-RNA is not detectable for at least 24 weeks after administration.
        DETAILED DESCRIPTION - Use of *ribavirin* derivatives of formula
    (I) and *interferon*-*alpha* is claimed for treating chronic hepatitis
    C infection so that HCV-RNA is not detectable for at least 24 weeks
    after administration.
        At least one of R2, R3 or R5=H, R6-(W)x-C0, R6-(W)x-CS-(HO)2PO,
    R6-(W)x-PO(OH) or HO-SO2, provided that at least 1 of R2, R3 or R5 is
    not H;
        R6=H or alkyl, alkanoyl, alkenyl or alkynyl (all optionally
    substituted by halo, phenyl, cycloalkyl, NR7aR7b, OH or alkoxy) aryl
    (optionally substituted by phenyl), heterocyclyl, cycloalkyl, NR7aR7b,
    halo, CN, NO2, OH, R18, CF3, SH, SR7a, SOR7a, SO2R7a, NR7aR7bCO2H,
    CO2-, OR7a, O-M+, S-M+, (CHR7a)e-(CH7a)f-COOR7b, (CHR7a)e-(CH2)f-OR7b
    or (CHR7a)e-(CH2)f-NR7aR7b;
        W=0, NR18 or S;
        R7a=H or alkyl, alkanoyl (all optionally substituted by phenyl,
    halo, CN, NO2, OH, COOH or alkoxy) or
        NR7aR7b + CHR7a, NR7a, O, S, SO or SO2=5-7 membered ring;
        R17=H, OR7a, NR7aR7b, R6-(W)x-CO, R6-(W)x-CS, (HO)2PO,
    R6-(W)x-PO(OH) or HO-SO2;
        R18=H, alkyl, alkanoyl or aryl;
        e=0-6;
        f=0-10 and
        x=0 or 1.
        INDEPENDENT CLAIMS are included for *ribavirin* derivatives of
    formula (II) and their salts.
        X=a group of formula (i)-(iv);
        R2', R3', R5'=H, R20-(W)x-C0, R20-(W)x-CS or R20-(W')w-P0(OH) and
    at least one of them is not H;
        R20=H, cycloalkyl, heterocyclyl, aryl (optionally substituted),
    NR21R22 or alkyl, alkanoyl, alkenyl or alkynyl (all optionally
    substituted), (CHR21)e-(CH2)f-COOR22, (CHR21)e-(CH2)f-OR22 or
    (CHR21)e-(CH2)f-NR21R22;
        W'=O, NR28 or S;
        R21=H, Y or alkyl, alkanoyl or aryl (all optionally substituted);
        R22=H or alkyl or aryl (both optionally substituted) or
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R21 + R22 + N and CHR21, NR21, O, S or SO2=5-7 membered ring;
        R27=H, OR21, NR21R22, R20-(W')x-CO, R20-(W')-CS, (HO)2PO or
    R20-(W')x-PO(OH) or HO-SO2;
        R28=H, alkanoyl, aryl or alkyl;
        at least one of R50', R30' and R20'=Q-(CR51R52)k-CO and the others
    are H or Q-(CR51R52)k-CO;
        Q=C(R53)(R54)(NR55R56);
        R51, R52=H or alkyl, alkenyl, alkynyl, 3-7C cycloalkyl or arylalkyl
    (all optionally substituted) or
        CR51R52=cyclopropane, cyclobutane, cyclopentane or cyclohexane;
        R53, R54=H or alkanoyl, alkyl, aryl, alkenyl, alkynyl or alkanoyl
    (all optionally substituted), indol-3-ylmethyl, 4-hydroxyphenylmethyl,
    imidazol-4-ylmethyl or a group of formula (v);
        R57=H or alkyl, alkanoyl, alkenoyl, aryl, arylalkyl, alkenyl or
    alkynyl (all optionally substituted);
        R58=H, alkyl, aryl, arylalkyl, alkenyl or alkynyl;
        q=0, 1 or 2;
        k=1 or 2;
        at least one of R50'', R30'' and R20''=T-(CR58R59)d-CO and the
    others are H or T-(CR58R59)d-CO;
        T=e.g: H2NCH2, H2N(CH2)4 or Me(CH)(OH)CH(H2N), etc;
        R58, R59=H or alkyl, alkenyl, alkynyl, 3-7C cycloalkyl or arylalkyl
    (all optionally substituted) or
        CR58R59=cyclopropane, cyclobutane, cyclopentane or cyclohexane;
        d=0-2;
        R20aCO=+H3N-CO and
        Y=e.g: H, Me, HOOCCH2, HOCH2 or 4-hydroxyphenylmethyl, etc.
        ACTIVITY - Antiviral.
        MECHANISM OF ACTION - None given.
        USE - Used for treating viral infections including influenza A and
    B viral infections, parainfluenza viral infections, respiratory
    syncytial virus infections, measles viral infections, Lassa fever viral
    infections, Korean hemorrhagic fever infections, hepatitis B viral
    infections, Crimean Congo hemorrhagic and HCV infections and HIV-1
    infections, encephalitis infections and viral infections in
    immunocomprised patients. (I) and (II) Metabolize into *ribavirin* in
    vivo.
        ADVANTAGE - Side effects are reduced.
        pp; 120 DwgNo 0/0
             (Item 6 from file: 351)
 6/AB/42
DIALOG(R) File 351: Derwent WPI
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013157038
WPI Acc No: 2000-328911/200028
XRAM Acc No: C00-099643
  New biheterocyclic compounds are serine protease inhibitors used for
  treating hepatitis C viral infections
Patent Assignee: AXYS PHARM INC (AXYS-N)
Inventor: HATAYE J M; RICE K; SHELTON E J; SPENCER J R; WANG V R
Number of Countries: 087 Number of Patents: 002
Patent Family:
Patent No
              Kind
                     Date
                             Applicat No
                                            Kind
                                                   Date
                                                            Week
WO 200020400 A1 20000413 WO 99US22850
                                           A 19991004 200028 B
AU 200010990 A
                   20000426 AU 200010990
                                           Α
                                                 19991004 200036
Priority Applications (No Type Date): US 98103085 A 19981005
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Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes WO 200020400 A1 E 55 C07D-235/04 Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW C07D-235/04 AU 200010990 A Based on patent WO 200020400 Abstract (Basic): WO 200020400 A1 Abstract (Basic): NOVELTY - Biheterocyclic compounds (I) are new. DETAILED DESCRIPTION - Biheterocyclic compounds of formula (I) and their N-oxide derivatives, prodrug derivatives, protected derivatives, individual isomers, mixtures of isomers and salts are new. n1=0-4;n2=0-3;A + B and C + B=fused heterobicyclyl containing 8-12 ring atoms in which each ring contains 5-7 ring atoms with each atom optionally comprising a heteroatom; X1=N, NR5, O or S; X5=N, NR6, O or S; R5=H or 1-6C alkyl; R6=H or 1-8C alkyl optionally substituted by 1-2 halo, tri-(1-6C) alkylammonium, NR7R7, CONR7R7, OR7, COOR7, OCOR7 or SO2OR7; R7=H or 1-6C alkyl; X3=O, S, SO, SO2, CO, NR8 or CR8R9; R8, R9=H, halo or 1-6C alkyl or R8 + R9 = 1 - 6C alkylidene, in which any 1 - 3C atoms with a free valence are optionally substituted by halo, tri-(1-6C) alkylammonium, NR10R10, CONR10R10, OR10, COOR10, OCOR10; R10=H or 1-6C alkyl; R1, R2=1-6C alkyl, 1-6C alkyloxy, 1-6C alkanoyloxy, 1-6C alkylthio, halo, hydroxy or mercapto and is bonded to any ring C atom in ring B (for R1) or ring C (for R2) with a free valence; R3=CN, R11, CR12R12NR11R13, C(NR13)R11, COR11, C(NR13)NR11R13, CONR11R13, COOR11, SOR11, SO2R11, SO2NR11R13 or SO2OR11 and is bonded to any C atom in ring B with a free valence; R11=H, 1-6C alkyl, 3-6C cycloalkyl-(0-3C) alkyl, 3-6Cheterocycloalkyl-(0-3C) alkyl, 6-10C aryl-(0-3C) alkyl, 5-14C heteroaryl-(0-3C) alkyl, 9-10C polycycloalkyl-(0-3C) alkyl or 8-10C heteropolycyclo-(0-3) alkyl (in which all alkyl are optionally substituted by 1-3 P(O)(OR14)OR14, SO2OR14 or COOR14 and any 1-3 ring C atoms with free valences of any aromatic ring are optionally substituted by halo, NO2, CN, optionally halo-substituted 1-6C alkyl, OR14, COOR14, CONR14R14, X6NR14R14, X6NR14CONR14R14 or X6NR14C(NR14)NR14; X6=a bond or methylene; R14=H or 1-6C alkyl; R12=H or 1-3C alkyl or CR12R12=cyclopropyl; R13=H or 1-6C alkyl or R4=R15, OR15, NR15R16, SR15, SOR15, SO2R15, SO2OR15, SO2NR15R16, N(R16)SO2R15, COR15, COOR15, CONR15R16, N(R16)COR15, OCONR15R16, N(R16)COOR15 or N(R16)CONR15R16 bonded to any ring C atom with a free valence in ring C; R15=1-6C alkyl substituted by 1-2 P(O)(OR17)OR17 or SO2OR17 and optionally substituted by 1-2 COOR17;

R17=H or 1-6C alkyl and

R16=H or 1-6C alkyl.

N.B: X2 and X4 are not defined.

ACTIVITY - Antiviral.

 ${\tt MECHANISM}$ OF ACTION - Serine protease inhibitor; hepatitis C virus protease NS3 inhibitor.

A mixture of HCV NS3 protease (1-3 nM), NS3 cofactor NS4a (10 micro-M), zinc chloride (5 micro-M), tris-(hydroxymethyl)aminomethane (Tris) (50 micro-M), glycerol (50%), Tween 20 (RTM: polyoxyethylenesorbitan monolaurate, 0.05%) and 2-((2-(5-Carbamoyl-1H-benzoimidazol-2-ylmethyl)-3-methyl-3H-benzoimidazol-5-carbonyl)-amino)-phosphono-propionic acid (Ia) was incubated at room temperature for 15 minutes. The quenched fluorescence substrate acetyl-Asp-Glu-Asp(Edans)-Glu-Glu-Abu-T(COO)-Ala-Ser-Lys(Dabcyl)-NH2 was added to a final concentration of 1.5 micro-M. *Hydrolysis* of the fluorescent substrate was followed spectrophotometrically at 485 nm after excitation at 355 nm. Apparent inhibition constants (Ki) were calculated from progress curves of the velocity of the NS3-catalyzed *hydrolysis*.

(Ia) exhibited a Ki value of 0.062 micro-M.

USE - Used for treating hepatitis C virus infection, to prevent the disease occurring in patients predisposed to the disease, but not yet experiencing or displaying the pathology and/or symptoms, to inhibit the disease by arresting development of its pathology and/or symptoms, and to ameliorate the disease by reversing its pathology and/or symptoms.

ADVANTAGE - (I) Are low molecular weight, non-peptide inhibitors of NS3 serine protease.

pp; 55 DwgNo 0/0

6/AB/43 (Item 7 from file: 351)
DIALOG(R)File 351:Derwent WPI
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013145982

WPI Acc No: 2000-317854/200027

XRAM Acc No: C00-096220

Treatment of HIV infection comprises administration of a cytotoxic agent and at least one non-nucleoside reverse transcriptase HIV inhibitor

Patent Assignee: DU PONT PHARM CO (DUPO)

Inventor: KORANT B D

Number of Countries: 046 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week WO 200021565 A1 20000420 WO 99US23192 Α 19991005 200027 B AU 9965088 Α 20000501 AU 9965088 Α 19991005 200036

Priority Applications (No Type Date): US 98103922 A 19981013

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200021565 A1 E 31 A61K-045/06

Designated States (National): AL AU BR CA CN CZ EE HU IL IN JP KR LT LV MK MX NO NZ PL RO RU SG SI SK TR UA VN ZA

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

AU 9965088 A A61K-045/06 Based on patent WO 200021565

Abstract (Basic): WO 200021565 A1

Abstract (Basic):

NOVELTY - Treatment of HIV infection comprises administration of a

cytotoxic agent and at least one non-nucleoside reverse transcriptase HIV inhibitor (NNRTI).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (a) a kit for the treatment of HIV infection comprising at least one cytotoxic agent, at least one NNRTI and at least one carrier;
- (b) a method of eradicating virally infected cells comprising administering a combination of at least one antiviral agent and at least on cytotoxic agent, provided that the antiviral agent is selective for the virus infecting the cells to be eradicated;
- (c) a kit for the treatment of chronic viral infection comprising at least one antiviral agent, at least one cytotoxic agent and at least one carrier.

ACTIVITY - Antiviral.

USE - For eradicating virally infected cells, including cells infected with HIV. In (b), the chronic virus infecting the cells is selected from herpesvirus types I and II, cytomegalovirus, hepatitis B virus, hepatitis C virus and varicella-zoster.

ADVANTAGE - The cytotoxic agent and the antiviral or NNRTI agent have a synergistic effect (claimed).

pp; 31 DwgNo 0/0

∤AU 9938600

Abstract (Basic):

Α

Abstract (Basic): EP 956861 A1

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6/AB/44
            (Item 8 from file: 351)
DIALOG(R) File 351: Derwent WPI
(c) 2000 Derwent Info Ltd. All rts. reserv.
012806591
WPI Acc No: 1999-612821/199953
XRAM Acc No: C99-178594
  Use of *ribavirin* and/or *interferon*-*alpha* for composition for
  treating chronic hepatitis C
Patent Assignee: SCHERING CORP (SCHE )
Inventor: ALBRECHT J K
Number of Countries: 084 Number of Patents: 003
Patent Family:
Patent No Kind
                    Date
                            Applicat No
                                          Kind
                                                 Date
                                                          Week
                                               19990513 199953
              Al 19991117 EP 99303729
EP 956861
                                           Α
WO 9959621
                                          Α
             A1 19991125 WO 99US7037
                                               19990513 200003
AU 9938600
             A 19991206 AU 9938600
                                          Α
                                               19990513 200019
Priority Applications (No Type Date): US 9879566 A 19980515
Patent Details:
Patent No Kind Lan Pg Main IPC
                                    Filing Notes
             A1 E 26 A61K-038/21
   Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
   LI LT LU LV MC MK NL PT RO SE SI
WO 9959621
             A1 E
                      A61K-038/21
   Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN
   CZ DE DK EE ES FI GB GD GE HR HU ID IL IN IS JP KG KR KZ LC LK LR LT LU
  LV MD MG MK MN MX NO NZ PL PT RO RU SE SG SI SK SL TJ TM TR TT UA UZ VN
  YU ZA
   Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
   IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW
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A61K-038/21 Based on patent WO 9959621

NOVELTY - The use of *ribavirin* and/or *interferon*-*alpha* (IFN-

alpha) for the manufacture of a pharmaceutical composition, for

treating an antiviral treatment naive patient having chronic hepatitis C infection to eradicate detectable HCV-RNA, is new.

DETAILED DESCRIPTION - The use of *ribavirin* and/or *interferon*-*alpha* (IFN-*alpha*) for the manufacture of a pharmaceutical composition, for treating an antiviral treatment naive patient having chronic hepatitis C infection to eradicate detectable HCV-RNA, is new. The method comprises administering *ribavirin* with IFN-alpha for a period of 20-50 weeks. If the antiviral treatment naive patient has an HCV genotype 1 infection, the patient is administered *ribavirin* in association with IFN-alpha for 40-50 (especially 48) weeks and if the antiviral treatment naive patient has an HCV genotype 2 or 3 infection, the patient is administered *ribavirin* in association with IFN-alpha for 20-30 (especially 24) weeks.

ACTIVITY - Antiviral.

A study was carried out to study the effects of administering IFN-alpha with *ribavirin* and IFN-alpha with a placebo. After 24 weeks of treatment, 81% of the group administered with IFN-alpha with *ribavirin* had no detectable HCV-RNA and in the placebo group 48% of the group had no detectable HCV-RNA after a further 4 weeks.

MECHANISM OF ACTION - The combination of *ribavirin* and/or IFN-alpha eradicates detectable HCV-RNA.

USE - The composition of *ribavirin* and/or IFN-alpha is useful for the preparation of a pharmaceutical composition for treating antiviral treatment naive patient having chronic hepatitis C (claimed).

 ${\tt ADVANTAGE}$ - The composition eradicates ${\tt HCV-RNA}$ in a long-term and effective manner.

pp; 26 DwgNo 0/0

6/AB/45 (Item 9 from file: 351)
DIALOG(R)File 351:Derwent WPI
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012639277

WPI Acc No: 1999-445381/199938

XRAM Acc No: C99-131363

Treatment of hepatitis C virus infection and associated liver cancer with

hydrolytic enzyme and flavonoid

Patent Assignee: MUCOS PHARMA GMBH & CO (MUCO-N)

Inventor: RANSBERGER K; STAUDER G

Number of Countries: 025 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
DE 19804742 A1 19990812 DE 1004742 A 19980206 199938 B
EP 943337 A2 19990922 EP 99101335 A 19990125 199943

Priority Applications (No Type Date): DE 1004742 A 19980206

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

DE 19804742 A1 10 A61K-038/46

EP 943337 A2 G A61K-038/48

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT

LI LT LU LV MC MK NL PT RO SE SI

Abstract (Basic): DE 19804742 A1

Abstract (Basic):

NOVELTY - The use of at least one *hydrolytic* enzyme (I) and at least one flavonoid (II) to treat diseases caused by the hepatitis C virus is new.

ACTIVITY - Antiviral; anticancer. MECHANISM OF ACTION - None given.

USE - (I) is used to treat chronic hepatitis C and/or liver cell carcinoma (both claimed). Oral treatment of hepatitis C patients with 90 mg bromelain, 48 mg trypsin and 100 mg rutoside, 3 times per day for 12 weeks markedly reduced activity of liver transaminases (e.g. reduced the liver aspartate aminotransferase activity from circa 123 U/l to circa 68 U/l) and was well tolerated.

ADVANTAGE - The combination of (I) and (II) is more effective than (expensive) previously used drugs (e.g. *alpha*-*interferon* or *ribavirin*) and causes no harmful side effects even on long term use. (I) can be isolated inexpensively from natural materials. pp; 10 DwgNo 0/7

6/AB/46 (Item 10 from file: 351)
DIALOG(R)File 351:Derwent WPI
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012578054

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WPI Acc No: 1999-384161/199932

Related WPI Acc No: 1999-384698; 2000-316964

XRAM Acc No: C99-112909

Fast dissolving oral dosage form containing *ribavirin*

Patent Assignee: SCHERING CORP (SCHE)

Inventor: BOWEN F E; CHAUDRY I A; LIEBOWITZ S M; STUPAK E I; VADINO W A;

STUPAK E J

Number of Countries: 084 Number of Patents: 009

Patent Family:

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Patent No	Kind	Date	Applic	at No	Kind	Date	Week	
US 5914128	A	19990622	US 979	97172	A	19971222	199932	В
WO 9932128	A1	19990701	WO 980	JS26222	A	19981221	199933	
ZA 9811726	А	19990831	ZA 981	1726	А	19981221	199939	
AU 9921991	A	19990712	AU 992	21991	A	19981221	199950	
EP 991415	A1	20000412	EP 989	65983	A	19981221	200023	
			WO 980	JS26222	Α	19981221		
CA 2300452	A1	19990701	CA 228	37056	A	19981221	200036	
			CA 230	0452	A	19981221		
CA 2287056	С	20000815	CA 228	37056	Α	19981221	200050	
			WO 980	JS26222	A	19981221		
NO 2000032	34 A	20000821	WO 980	JS26222	Α	19981221	200052	
			NO 200	03234	Α	20000621		
BR 9814367	A	20001017	BR 981	.4367	A	19981221	200056	
			WO 980	JS26222	Α	19981221		

Priority Applications (No Type Date): US 97997172 A 19971222; US 97997169 A 19971222

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 5914128 A 6 A61K-009/48

WO 9932128 A1 E A61K-031/70

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GD GE HR HU ID IL IN IS JP KG KR KZ LC LK LR LT LU LV MD MG MK MN MX NO NZ PL PT RO RU SE SG SI SK SL TJ TM TR TT UA US UZ VN YU

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

ZA 9811726 A 19 A61K-000/00

AU 9921991 A A61K-031/70 Based on patent WO 9932128

EP 991415 A1 E A61K-031/70 Based on patent WO 9932128

Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LT LU LV NL PT RO SE

JIANG 09/317688 PAGE 32 OF 32

CA 2300452 A1 E A61K-031/7056 Div ex application CA 2287056 CA 2287056 C E A61K-031/70 Based on patent WO 9932128 NO 200003234 A A61K-000/00 BR 9814367 A A61K-031/70 Based on patent WO 9932128

Abstract (Basic): US 5914128 A

Abstract (Basic):

NOVELTY - Orally administrable solid dosage form contains *ribavirin* (I) and a disintegrant where the composition has a tap density of at least 0.6 g/ml and more than 80 wt.% (I) dissolves in water in 30 minutes.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a rapidly dissolving *ribavirin* composition comprising:

- (a) *ribavirin*;
- (b) a filler selected from anhydrous lactose, lactose monohydrate, sucrose, mannitol, microcrystalline cellulose, pregelatinized starch, dibasic calcium phosphate dihydrate, calcium sulfate dihydrate and/or calcium sulfate trihydrate;
- (c) a disintegrant selected from croscarmellose sodium, sodium starch glycolate, corn starch, pregelatinized starch, sodium carboxymethyl cellulose, potato starch, microcrystalline cellulose, cross linked polyvinyl pyrrolidone, magnesium aluminum silicate, bentonite, alginic acid and alginates; and
- (d) a lubricant selected from magnesium stearate, calcium stearate, zinc stearate, talc, propylene glycol, *PEG* 4000, *PEG* 5000, *PEG* 6000 and stearic acid.

The tap density of the compacted composition is at least 0.6 g/ml. ACTIVITY - Antiviral;

USE - The capsules are used as antiviral agents, particularly in combination with *interferon* *alpha*-2b for treatment of chronic hepatitis C infection.

ADVANTAGE - The composition displays shorter dissolution and disintegration times. The tap density of 0.6 g/ml allows faster filling of capsules in high speed processing plants without the formation of undesirable *ribavirin* polymorphs.

pp; 6 DwgNo 0/0

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